

INLAND



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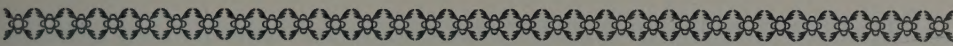
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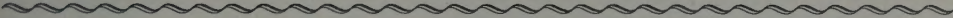
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A History of the Royal Canadian Yacht Club, 1852-1952

By ROWLEY MURPHY



CRUISING AND RACING under sail on Lake Ontario started in 1678 and 1756, and soon developed into international contests which continue to this day.

The first cruise on this lake of which we have record was made in a 10 ton French barque or brigantine about 30 feet long, probably called *Frontenac*. She sailed under command of the Sieur de LaMotte with a crew of 15 from Fort Frontenac, now Kingston, Ontario, on November 18th, 1678, for Niagara; and after working up what we now call Adolphus Reach sailed through the Upper Gap into Lake Ontario. She shaped a course as close as she could lie along the north shore for some little shelter against the strong and cold northwest wind. After a strenuous passage, aided finally by a fair wind, she made the mouth of the Humber River, now in the City of Toronto, on November 27th. Her company went ashore for food and to trade with the Indians. While in the lower river, she was frozen in, but later was cut out of the ice and sailed for the Niagara River, where she arrived on December 7th. She was towed up the river by her crew and hauled ashore for the winter at a spot below the present old Suspension Bridge at Lewiston. The log of this cruise, written by Father Hennepin, is of great interest, as his observations of wind and weather apply equally well to conditions found at present.

The first international race under sail, which was accompanied by gunfire of a warlike character, was sailed between the French fleet from Fort Frontenac and the British fleet from Oswego in the early morning of June 26, 1756. Since that day these international contests under sail with gunfire have continued to the present, though now the guns usually mark the start and finish of the various classes of yacht racing.

This French and British action was followed by many American and British races and battles from 1812 to 1815. One of these spirited contests from Humber Bay to Burlington Bay, the harbour of the present City of Hamilton, was called the "Burlington Races"; the races being won by the British and Canadians, with the gunfire of the American fleet rather too effective. In more peaceful years some piracy and a good deal of smuggling were carried on under sail. The last real battle however, featuring "heavy" gunfire was between the American and Canadian fleets anchored in Belleville, Ontario, harbour at the close of the L. Y. R. A. regatta in 1925, and is known as the "Battle of Belleville." As the writer in his schooner *Zoraya* was directly in the line of fire between the American P-class sloop *Alloede* of the Rochester Yacht Club and the Canadian schooner *Yolanda* of the Royal Canadian Yacht Club, Toronto, which opened the contest, he has full information of this lively and most humorous action. Every yacht in the large fleet which carried a saluting gun or other weapon fired, until in about 30 minutes powder and shot (potatoes) were exhausted.

By the time of the British conquest of New France much sailing had been done on Lake Ontario by vessels built on its shores, and a great deal more followed during the war of 1812. When the Rush-Bagot Treaty outlawed war on the lakes, schooners and other vessels built for commercial purposes followed. Finally yachts, or vessels built not only for naval but government use, appeared. The schooner *Toronto Yacht*, 1799, and the cutter *Bullfrog*, 1828, among others, both had a naval and government activity.

As trade and prosperity increased, the number of yachts built by private owners solely for pleasurable uses increased. Finally their numbers and the formal and informal racing indulged in had grown to such an extent, that the need of a yacht club, or governing body was felt. In the winter of 1851, while the victory of George Steers' great schooner *America*, when she won the Royal Squadron Cup at Cowes, England, was fresh in the public mind, several of the leaders of Lake Ontario yachting, who resided in Toronto, held a series of meetings in the business premises of one of them, Captain W. H. Fellowes, a commission merchant on Melinda Street. Other gentlemen present were Dr. Hodder, Major McGrath, Mr. S. B. Harman, Mr. John Arnoldi, Mr. Thomas

Shortiss, Mr. Charles Heath, and Mr. William Armstrong, who was an outstanding marine artist of his day. These meetings resulted in the formation of the Toronto Boat Club.

As many early club records were lost in clubhouse fires, it is probable that this club existed before 1852, but in that year the name was changed to Toronto Yacht Club, with rules and regulations published for a proper sailing organization. In 1854 the name was changed, by royal warrant from Queen Victoria, to the Royal Canadian Yacht Club; but the yachts of the club fleet were not granted the right to fly the blue ensign of the naval reserve with a crown in the fly, until 1878. This club, at present celebrating its 100th anniversary, has had a long and honourable history, and has done more than any other Canadian yacht club to forward international races under sail, with their consequent development of the design, building, and sailing of yachts.

In 1860, eight years after its formation, the club had grown to such an extent physically and socially, that the Prince of Wales, later King Edward VII, was pleased to extend his Royal patronage. He witnessed the start of the regatta held in Toronto in his honour, and the following year presented the club with a very handsome trophy, known as the Prince of Wales Cup, the first races for which were sailed in 1861. It is the club's most important trophy and is sailed for annually by the whole fleet, racing on time allowance. In the past this race was across Lake Ontario and return, but since 1898 it has been sailed over the long triangular course south of Toronto Island.

The club's most ambitious participation in international racing was in 1876 when the Royal Canadian Yacht Club schooner *Countess of Dufferin* sailed two races against the New York Yacht Club schooner *Madeleine* for the *America's Cup*. These vessels were large centre-board schooners, and the *Madeleine* won with little difficulty. The *Countess* was designed and built by Alexander Cuthbert.

The most important international trophy on the Great Lakes, the *Canada's Cup*, named for the cutter *Canada*, winner of the first series of races in 1896, has produced more than 40 yachts, built for challenge or defence, in the nine international contests which have been sailed. These contests have had more than a little influence on yacht design, and

all Canadian contenders have been the property of members of the Royal Canadian Yacht Club.

The first challenge came from the Lincoln Park Yacht Club of Chicago for a series of races to be sailed in 1896 between the cutter *Vencedor*, of 42 foot L. W. L. or 45 foot racing length designed by A. Poekle, a former draughtsman with the Herreshoffs, and built in Racine, Wisconsin, and a Canadian yacht. The Royal Canadian Yacht Club accepted the challenge, but having no yacht of that L. W. L. or racing length, commissioned Wm. Fife, Jr., of Fairlie to design a vessel 38 foot L. W. L. or about 42 foot racing length, which was built by Captain James Andrew of Oakville, Ontario, a designer and builder of lake schooners and yachts.

Several Great Lakes cities were anxious to have the races sailed in their vicinity, but finally Toledo was selected, having proposed a \$500 cup to the winner and \$1500 in cash. Toledo was also about half way from the home ports of the two yachts competing.

Canada was sailed by the great Aemilius Jarvis and *Vencedor* by Captain J. C. Barbour, her sailing master. Three races were sailed but the first could not be completed in the time limit, and the next two were won by *Canada*. *Vencedor* was unfortunately lost on Mackinac Island at the conclusion of the Mackinac Race in 1912, and *Canada* was broken up about 1913.

Many American and Canadian yachts sailed to Toledo to see the cup races and while all were together, a meeting was held at Put-in-Bay when the Yacht Racing Union, composed of the Lake Yacht Racing Association of Lake Ontario, the Inter-Lake Yachting Association of Lake Erie, Detroit River, and Lake St. Clair and the Lake Michigan Yachting Association, was formed.

Like the race for the 100 guinea Cup won by *America* at Cowes, the cup won by *Canada* at Toledo was originally only for the series between the yachts then competing. The owners of *Canada* under a deed of gift turned the cup over to the Royal Canadian Yacht Club for international competition in any of the classes between 30 and 40 foot water line. The next series of races in 1898 were consequently for what is now known as the *Canada's Cup*.

The series of races following *Canada's* initial victory in 1896 were as follows:

1898.

Off Toronto. *Genesee*, 30 foot water line centreboard sloop, representing the Chicago Yacht Club, sailed by Charles G. Davis, won three straight races from *Beaver*, 30 foot keel sloop, designed and built by A. E. Payne of Southampton, and sailed by Aemilius Jarvis.

1901.

Invader, 30 foot keel sloop, Royal Canadian Yacht Club, designed by Charles Sibbick, won from *Cadillac*, Chicago Yacht Club, designed by Hanley, in two out of three races. *Invader* was sailed by Aemilius Jarvis, *Cadillac* by Wm. Hale Thompson.

1903.

Sailed off Toronto between the handsome 40 foot cutters *Irondequoit*, Rochester Yacht Club, and *Strathcona*, Royal Canadian Yacht Club. *Irondequoit* was designed by Wm. Gardner and sailed by Captain Barr and Addison Hannan, and *Strathcona*, designed by A. E. Payne of Southampton, was sailed by Aemilius Jarvis. Best three out of five races won by *Irondequoit*.

1904.

Iroquois of the Rochester Yacht Club, a 30 foot keel sloop designed by Charles F. Herreshoff and sailed by Laurie C. Mabbett, won three out of five races (one postponed) from *Temeraire*, Royal Canadian Yacht Club 30 foot keel sloop, designed by Fife and sailed by E. K. M. Wedd. Sailed off Rochester.

1907.

Seneca, 30 foot keel sloop of Rochester Yacht Club, designed by N. G. Herreshoff and sailed by Addison Hannan, won three straight races from *Adele*, Royal Canadian Yacht Club 30 foot keel sloop designed by A. E. Payne and sailed by Aemilius Jarvis.

1930.

Thisbe, 8-metre sloop, Rochester Yacht Club, designed by Clinton H. Crane and sailed by Wm. Barrows, won three out of five races in a hard fought series from *Quest*, Royal Canadian Yacht Club 8-metre sloop

designed by Wm. Fife, Jr. and sailed by Rear Commodore Norman R. Gooderham.

1932.

Conewago, 8-metre sloop of Rochester Yacht Club, designed by Olin Stephens and sailed by Wilmot V. Castle, won three out of five races against *Invader II*, designed by Wm. Fife, Jr. and sailed by Walter Windeyer.

1934.

Conewago, 8-metre sloop of Rochester Yacht Club, designed by Olin Stephens and sailed by W. V. Castle, won three straight races in a north-west gale and light weather from *Invader II*, Royal Canadian Yacht Club 8-metre sloop, designed by Wm. Fife, Jr. and sailed by T. K. Wade.

Since the victory of *Irondequoit* in 1903, the *Canada's* Cup has had permanent moorings at the Rochester Yacht Club, and it is to be hoped that another challenge will soon be forthcoming from the Royal Canadian Yacht Club to the Rochester Yacht Club.

In the past 100 years the yachts belonging to the Royal Canadian Yacht Club have been many and of widely different designs. In a drawing by Wm. Armstrong, some of the fleet of 1852 is shown. One is the iron cutter *Rivet*, built in England in 1851, which lasted well, as the writer knew her as a little steam tug in 1906-7. In the same picture is a quite modern-looking marconi sloop, the *Undine*, with hoops on her masts rather than a track; a well designed clipper-bowed schooner; another cutter, perhaps the *Dart*, built in Toronto before 1832; and a lugger.

From club records and other sources there appear, in the past 100 years, to have been approximately 662 different yachts, 603 sail, 21 steam, and 38 motor, which have been the property of members. These figures do not include hundreds of sailing dinghies since Mr. J. Wilton Morse designed and built the first one for himself in 1898, nor the many small and fast centreboard sloops of the Lake Sailing Skiff Association, formed in 1898, of which the Royal Canadian Yacht Club had its quota. The preponderance of sailing yachts over those propelled by steam or gasoline has been a noticeable characteristic of the Royal Canadian Yacht Club, and long may this be so!

In the records mentioned, cutters lead in numbers in the past while sloops predominate now, followed by schooners, yawls and ketches. Of these, British, American, Canadian, and some European designers have been represented, and within the memory of living members, the following well-known designers, and some of their outstanding yachts, which have been or are in the Royal Canadian Yacht Club fleet, are as follows:

George L. Watson—*Rivet*; *Madge*; *Verve I & II*; *Aileen*; *Vreda*; Steam Yacht *Cleopatra*; *Vivia I*.

Wm. Fife & Sons—*Vedette*; *Cyprus*; *Canada*; *Zelma*; *Yama*; *Cru-sader*; *Temeraire*; *Quest*; *Invader II*.

A. E. Payne—*Gloria*; *Beaver*; *Strathcona*; *Adele*.

Charles Sibbick—*Invader*.

Alfred Milne—*Zoraya*; *Aileen II*.

C. E. Nicolson—*Vision*; *Solenta*.

George Steers, the designer of the *America*, was represented with *Gorilla*, a large and fast sloop.

Edward Burgess of Boston with *Wona*.

Pat McGiehan—*Brunette*; *Ina*.

A. Cary Smith—*Oriole II*; *Oriole III*; *Teckla*; *Clorita*; *Zabra*.

L. Francis Herreshoff—three H28 cruising ketches, and the 12-metre *Mitena*.

N. G. Herreshoff—*Seneca*; *Nutmeg*; *Cara Mia*; *Haswell*; *Venture*; *Nonchalant*.

George Owen—*Whirl*; *Petrel*; *Grayling*; *Swamba*; *Vivia II*; *Nirwana*; *Scrapper*; *Patricia*; *Abmeek*; *Oriole IV*; *Stranger*; *Bernice*; *Italia*.

F. C. Paine—*Chimon*.

John Alden—*Lillian E.*; *Avalon*; *Little One*; *Heron*.

F. M. Gardner—*Gardenia*; and Star-class sloops.

Sherman Hoyt—*Aphrodite*.

Olin J. Stephens—*Mist*.

Philip L. Rhodes—*Daphne*; *Stormalong*; *Josephine*.

Canadian designers have been: Alexander Cuthbert—*Countess of Dufferin*; *Atalanta*; *White Wings*; *Mirage*; *Sylvia*; *Annie Cuthbert*.

Captain James Andrew—*Aggie*; *Merrythought*.

Aemilius Jarvis, S.S.D.—*Samoa*; *Whistlewing*; *Chaperone*; and others.

A. Montye Macrae—*Adanac*; *Anitra*.

H. C. McLeod—*Minota*.

G. Herrick Duggan—*Escape*; *Yendys*; *Thyone*; *Zavorah*; *Avorah*; *Glencairn*; *Kingarvie*.

T. B. F. Benson—*Nayada*; *Eleanor*; *Yolanda*; *Blue Moon*; *Louebée*; *Kelnordic*; and C-class sloops.

W. J. Roué—*Acadia*; *Norseman*; *Pieces of Eight*; *Captain Jack*.

Charles Bourke—*Iska*, several small sloops, and many racing dinghies.

J. W. Braidwood—*Rainbow*; *Varua II*.

European designers are: Hans Sashau—*Killua*. Kund Reimers—*Kyra*, and others of the Tumlares Class. B. J. Aas—*Chance*.

The formation of the Lake Yacht Racing Association in 1884 gave a great impetus to international racing by its annual regattas. The founder clubs appear to have been the Oswego Yacht Club, the Bay of Quinte Yacht Club, the Toronto Yacht Club, and the Royal Canadian Yacht Club. Originally all yacht clubs on the Great Lakes were welcome to become members, but now, as Lake Erie and Lake St. Clair have one organization and Lake Michigan another, the Lake Yacht Racing Association takes care of Lake Ontario and the east end of Lake Erie. In addition, the Rochester Yacht Club, Royal Hamilton Yacht Club, Queen City Yacht Club, Crescent Yacht Club, Olcott Yacht Club, Buffalo Canoe Club, Burlington Yacht Club, Clayton Yacht Club, Kingston Yacht Club, National Yacht Club, and Sodus Yacht Club are now added to the founder clubs of the L. Y. R. A. With associated member clubs running to 23 more, the L. Y. R. A. is a really strong organization.

The annual regatta of the L. Y. R. A. is held at some Lake Ontario port each year, and the Lake Ontario fleet usually races to the port selected. The Freeman Cup Race open to all L. Y. R. A. yachts has been sailed since 1921, and in this long distance race to take the fleet to the regatta, the first winner was Commodore Jarvis's Herreshoff schooner *Haswell*, who won from a large fleet in very heavy weather in this race from Hamilton to Kingston.

(To be continued)

Strong are the Ties*

By M. MANSFIELD STIMSON

WITH THE ARRIVAL OF THE 20TH CENTURY along the Detroit River there was no heraldry or celebration, only a greater procession of freighters going and coming on the river. Their size had noticeably increased and heavily laden they scudded along, pushing the water into foamy spray with their pointed prows, and leaving behind them only a wake that was crossed and recrossed by the wakes of others. They came at night while the cities on either shore slept; they came in the daytime, when life was astir and factory stacks were belching smoke. A number of them stopped at Detroit and poured their mighty cargoes upon the banks of the inlets. From there the raw materials went to the mills, furnaces and factories where more and more products were being made.

One of these products was a topless, four-wheeled machine, run by an engine whose power was measured by the strength of horses. In their embryonic state, the autos were startling. People constantly speculated about them. By 1910 they had proved themselves, and various companies in Detroit were manufacturing them. Even though a number of people bought them, even though their importance was granted, it was never dreamed that they would become as popular as they have become or that they would, either directly or indirectly, affect the life of the river.

The manufacture of cars was an endless cycle; the greater the production, the less the cost; the less the cost, the greater the demand; the greater the demand, the greater the production. The business was like a merry-go-round; people hopped enthusiastically and impulsively upon it,

* A chapter from a book manuscript, *The Detroit, Doorway of Desire*, an historical account of the Detroit River, which won First Essay Prize in the Hopwood contest. Other selections will appear in future issues of INLAND SEAS.—The Editor.

not knowing when or where it would stop. Investments were made, factories increased, not only in size but in number, and branches spread to the Canadian shore. Because they needed workers and paid high wages, the factories became magnets drawing people to Detroit and Windsor from farms, rural communities, and other cities in both countries, as well as a host of immigrants from the Old World. Unheard-of-prosperity came to the entire region; and, as news of it spread, even more people came. Villages, suburbs, and thriving communities began to line the shores solidly all along the river.

The greatest desire of every person was to own an automobile; some bought them outright, some bought them on time, and others contented themselves by purchasing used ones. In the evenings, on Sundays and holidays it was the practice to pile the family into whatever species of four-wheeled car it was, and go for a ride. In Canada they rode along the river; in Detroit they rode around the Grand Boulevard, and across the bridge to Belle Isle.

Those riding over the bridge to the island in the first days of the century often went to see the regattas which were held in the north channel between the island and Detroit. There the best rowing teams of Canada competed with those of the States in races that were popular and exciting.

On these occasions Jim Scott was always conspicuously present. Even though he was in his seventies, he was erect, of excellent build and moved about with the buoyancy and virility of a much younger man.

Mr. Scott was a paradoxical sort of person; instead of being the aristocrat, the well read scholar or statesman which every detail of his outer appearance indicated, he was a gambler of wide repute, a teller of shocking, filthy stories, and a completely obnoxious person to the better society which he always seemed to try to cultivate. In the gaming rooms of Detroit's clubs or hotels, at public gatherings of note, or wherever easy money was to be made, Jim Scott was present, rubbing elbows with influential citizens, or hobnobbing with them until he was rudely rejected.

Nobody ever understood Jim, and least of all when his will was published after his death in 1910. He left a great fortune to the city of Detroit with the provision that the money be used to erect a life-sized bronze statue of himself in the form of a fountain which was to be placed

in a manner the executors of the will saw fit, for the enjoyment of the public, on an improved and beautified parkway at the southwest tip of Belle Isle.

When the will was first published it caused a furor, especially among those who, because of their religious and moral views, condemned the life he led and the manner in which his money was obtained. Realizing the intensity of feeling and being reluctant to give up the money, the executors decided to wait until resentment died with the passing of time.

In the early 1920's when the proposal was again presented the city officials accepted the offer and let the contract to Cass Gilbert, with the hope that he would be able to design a fountain which would fulfill the requirements laid out in the will and still not make the figure of the benefactor too prominent. That he was successful in his accomplishment is well known, in that most persons seeing the fountain never realize that underneath the beautiful fountain head, almost hidden by the continuous spray, sits the life-sized bronze figure of Jim Scott. Whether people drive to the island for picnics, pleasure, or to witness the international Harmsworth power boat races or the Gold Cup races, whether they skirt the island leisurely in their small water craft, or whether they pass through the river on freighters or passenger boats, they see at the southwest end a landscape and fountain of rare beauty.

In 1926 automobile traffic was extremely heavy. Nobody knew it better than a captain of the Detroit Salvation Army, standing as he did night after night in the busy downtown section beating his drum. One evening as the endless procession streamed past him he got an idea. He couldn't sleep that night. The next afternoon he was in the offices of Parsons, Klapp, Brinckerhoff and Douglas enthusiastically presenting his feasible and profitable plan for a vehicular tunnel between Detroit and Windsor. He had spent the morning studying his subject and had his argument well organized. What, said he, if a tunnel hadn't been successful in 1871 because of a sulphurous air pocket; what if the limestone formation had prohibited the digging of one from Grosse Ile; hadn't the Michigan Central Railroad been successful in accomplishing the feat and hadn't they been running it profitably for over eighteen years?¹

1. Exactly 8,879,626 people crossed in this tunnel on trains in 1943.

The captain's plan set the firm to thinking. They agreed that it would be not only practical but profitable from an investment point of view. In a little over two years from the time the Salvation Army worker walked into the offices, the tunnel was completed and in operation. Later the beater of drums received quite a handsome remuneration for his vision.

The Detroit-Windsor tunnel is the first international vehicular tunnel, one of the few to be privately financed, privately built and privately operated. It is 5,137 feet from portal to portal and wide enough for two lanes of traffic in opposite directions with sufficient marginal space to pass the third car in case of emergency.² The driving time from downtown Detroit to the heart of Windsor under ordinary circumstances is five minutes.

About the same time the tunnel project was undertaken, other people joined in the private enterprise of constructing a bridge. Plans for a bridge had been discussed many times previously but shipping interests had always contended it would be hazardous to navigation. In order to clear the masts of ships the bridge would have to be built very high, and in the earlier days this would have been impossible.

By 1927 all obstructions for building a bridge were removed, the project was financed through the sale of public bonds and debentures, and work was started. The greatest difficulty in the whole enterprise was with the anchorages; the engineers had to go through 105 feet of wet clay and quicksand to reach limestone rock.³ On November 15, 1929, the 9,200 foot Ambassador Bridge was opened to the public. Its main span is 1,850 feet, there is a 47 foot wide roadway, 18 feet of width for sidewalk, but most important is the vertical clearance of 152 feet.

The completion of the Detroit-Windsor Tunnel and the Ambassador Bridge spelled the doom of the ferries, save for one which still operates at Walkerville. The two mighty ties of steel and concrete, anchored securely in the soil of each nation, opened the way for easy and rapid communication between the two cities and countries that would have been impossible for the boats to accomplish.

2. *Civil Engineering*, vol. I pp. 613-619, *Constructing the Detroit-Windsor Tunnel*, by S. A. Thoresen.

3. Wilbur J. Walson and H. Janse, *A Decade of Bridges, 1926-1936*, p. 20.

Even though the river lost cross traffic as the result of the building of the bridge and the tunnel, shipping through it increased. Fortunately, in 1912, the eleven mile long Livingstone Channel west of Bob-lo Island was opened to navigation. Even though it was a terribly tedious project — six miles of the river were enclosed in a 450 foot wide coffer-dam and a channel 23 feet in depth was cut through rock the entire length — it proved well worth all the expended money and effort.

The first ship to go through it on October 19, 1912, was the freighter *Wm. Livingstone*, and Mr. Livingstone piloted the vessel. He was president of the Lake Carriers' Association and had worked for many years to bring about the completion of this channel. Escorted to Detroit by a number of freighters, tugs and motor boats, he gave a speech to celebrate the occasion in which he said, "The Detroit River is the greatest navigated stream in the world, having more tonnage than all of the other navigable rivers combined, and more than four times the tonnage of the Suez Canal even though that is open all the year and the Detroit River 240 days. Eight of our largest Great Lakes freighters could carry the entire tonnage of the Mississippi River below St. Louis."⁴

After the opening of this channel, Canada and the United States formed an agreement whereby both countries' boats were to use the new American channel going east and the Canadian channel between Bob-lo and the mainland going west.

As a result of the Livingstone Channel, there was no longer the hazard of grounding, and congestion at the river's mouth. Ships could pass easily and quickly. Besides, time was becoming a more and more important economic factor. With the use of bigger, faster freighters, there was no need of frequent stops for fuel or supplies, and vessels that were not directed to Detroit or Windsor docks went straight on through.

Whether going or coming the crews of the cargo vessels are always eager to enter the Detroit River. Regardless of weather, as each freighter nears a point that is in line with Detroit's Woodward Avenue, it is greeted by a fast Post Office boat which comes alongside, adjusts its speed to that of the freighter and catches a large bucket which is lowered containing the out-going mail. When it is removed, letters and packages

4. The *Detroit*, vol. 2, November 1912, no. 15, pp. 9-10.

addressed to the members of the crew are put into it and sailors at the deck rail watch it hopefully as it rises.

The men on the mail boat enjoy their work and who wouldn't when the cooks on the freighters reward them with freshly baked pies! They are kept busy; they receive and distribute an amount of mail that would be handled in a city of 50,000. In 1941 they handled 1,689,654 pieces of mail⁵ and met an average of 100 ships a day.⁶

Another reason why the crews look forward to the trip through the Detroit River is because of J. W. Westcott's marine agency which furnishes service to freighters. Fresh laundry is delivered by small speed boats, soiled laundry is removed, supplies such as films, insect sprays and cigarettes are sold, and many times seamen or visitors are taxied to and from the vessels while they are passing. In no other place in the world are boats known to receive such service while en route.

The joint enterprises of Canada and the United States on the Detroit River throughout the years of this century and the increasing communication between the peoples of Windsor and Detroit have brought about a feeling of unity, understanding and good will that is hard to parallel.

For the last seventeen years it has been the practice to hold a joint service at St. Paul's Cathedral in Detroit on the Sunday nearest Empire Day, Queen Victoria's birthday, the 24th of May. On this day the various social and military organizations of Windsor go in a body to the foot of Woodward Avenue where they are met by an American escort. There they form a parade and march in coats of red, in uniforms of blue and khaki, and in historic Highland dress accompanied by a bagpipe band, past the City Hall, which on this special occasion flies the Union Jack, on to the opening doors of the cathedral, where the acting minister and the governor of Michigan extend a welcome and bid them enter.

The service is always conducted by an outstanding Canadian, usually an esteemed preacher, and during it there is enacted a ceremony, the Lowering of the Colors, which, until it was performed in this service, had never been allowed on other than British soil. Afterwards hearts and

5. *Detroit News*, April 1, 1952.

6. *Detroit Free Press*, August 30, 1941.

voices join the singing of "God Save the King," "America," "O! Canada," and "The Star Spangled Banner."⁷

When it was learned in Detroit that the late King and Queen of Great Britain would be unable to stop on the American shore during their trip to Windsor, June 6, 1939, plans were made by many Americans to greet them in Windsor. From early morning until their arrival in the late afternoon, car after car, decorated with British flags, crossed by the tunnel or bridge. Almost everyone who possessed a boat dressed it up with streamers, flags and banners and anchored near the station by the river to await the arrival of Their Majesties. As the streamlined train pulled in among the assembled crowd, a spontaneous chorus of shouts, cheers, auto horns and boat whistles extended greeting.

At the end of the day Detroit and Windsor customs officials were amazed at the tabulated record of American crossings. The amount of traffic was evidence of more than just curiosity; to Canadians it was a manifestation of the sincere friendship of their neighbors across the river.

After the War of 1812, through the years until the present, the relationship of the two peoples on the opposite shores of the Detroit has become ever stronger. And the river, which at first divided them, has become a common highway which closely unites them.

7. Information from John Hanna and Charles W. Erickson of Detroit.

The Story of the D & C

By FRANCIS DUNCAN

PART III

TO THOSE WHO KNOW THEM BEST, ships are endowed with personalities. No two of them are alike; each has its own mannerisms, habits and peculiarities. Like persons, some vessels lead long, quiet and successful lives, while other ships have careers punctuated with accidents and bad fortune. The *Morning Star* was not a lucky ship. Her adventures ranged from arson to more honest accidents. In late November, 1866, a merchant, who had over-insured the goods he shipped by the steamer, thoughtfully sent a young lad to set the ship afire when she reached mid-lake.¹ Although the conspiracy was discovered, the tide of bad luck continued to flow. Only a few days later a broken walking beam caused her to arrive in port in the tow of another steamer.² In May, 1868, a cracked piston head disabled the *Morning Star* when she was 15 miles out of Cleveland. She was half a day overdue when she entered Detroit behind her consort, the *R. N. Rice*.³ These, and other mishaps, spotted the record of the steamer that was only six years old in 1868.

A little more than a month after the cracked piston head incident the *Morning Star* lay at her dock in the Cuyahoga River at Cleveland. Saturday night, June 20, 1868, was rainy and dark. There were not many passengers aboard. James Moreton, the clerk, listed only 38 names. Below decks and on the docks, the stevedores were finishing the loading of 120 tons of general merchandise. A delay in getting aboard 20 tons of pig iron, destined for Jackson, Michigan, detained the vessel at her wharf beyond the usual sailing time.⁴ Not until 10:30 p. m. did she cast off

1. *Detroit Free Press*, November 21, 1866.

2. *Ibid.*, November 25, 1866.

3. *Ibid.*, May 12, 1868.

4. "Abstract of the Protest of Captain Viger," *Detroit Advertiser and Tribune*, June 24, 1868.

her lines and stand down the river. Once clear of the harbor entrance, she settled on her customary course of west-north-west under a moderate head of steam. The rain had stopped, but the night remained dark with good visibility for lights. Although a fresh breeze swept down from the north, the sea was easy and moderate.⁵

While the steamer was holding the course that she had sailed many times, the bark⁶ *Courtland* was bound down Lake Erie from Sheboygan to Cleveland with a cargo of 891 tons of iron ore.⁷ She was a new vessel, completed at a cost of \$55,000 and insured for \$36,000.⁸ Andrew Brown, a native of Detroit with salt water experience, began his watch as look-out of the bark at 10 o'clock. Near midnight, he reported the light of a steamer to the first mate, who, as the captain was below, had charge of the vessel. The mate came forward and, after looking at the lights, remarked that he believed them to be those on the Cleveland Pier. After going aft for his glasses, the mate returned to the bow. By this time the lights were clearly those of an approaching steamer. According to Brown, no orders were given.

Some little time before the collision and after the mate came forward looking at the steamboat's lights, I noticed our green light — it looked dim, as though it were damp. I called the mate's attention to it. He started and went aft, took the light down from the mizzen rigging and went into the cabin as I supposed to trim it. After a little while he came out with it and he went and was in the act of putting up the light into the mizzen rigging when the vessels came together. Think the mate was killed right there when he was reaching to fix up the light. The steamer striking the *Courtland* near the mizzen rigging on her starboard side.⁹

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5. *Ibid.* For further testimony on weather and visibility, see: Notarized Statement of Andrew Brown, Seaman, Bark *Courtland*, dated December 13, 1869. From a copy lent to the author by Mr. Fred Kolowich, Detroit & Cleveland Navigation Company.
 6. "Bark" as a type is nearly meaningless on fresh water, but was usually applied to a three-masted schooner with possibly a raffe or square sail on the foremast.
 7. "Abstract of the Protest of Captain Loudon," *Detroit Advertiser and Tribune*, June 24, 1868.
 8. *Detroit Free Press*, June 24, 1868. This source states that her cargo consisted of 1,000 tons of ore bound from Escanaba to Cleveland.
 9. Notarized Statement of Andrew Brown, December 13, 1869. It may seem strange that the mate was about 30 miles off in his reckoning. The only explanation seems to be the dark night and recent rain squalls. In other instances during the night the mate proved incompetent.

Viger, his second mate and wheelsman were in the pilot house when two or three taps of a bell and the sudden loom of sails shattered the calm of the routine voyage. As Viger swiftly rang his engines to stop, one of the passengers, Captain Thomas Harbottle, of Hamilton, Ontario, was peacefully smoking on the after deck. He heard the imperious jingle of the engine room bell signal "stop" and almost simultaneously felt the impact of the collision. Running forward, he discovered that some 20 feet of the bow on the cabin deck had been carried away and two or three feet at the water line was gone. All this he shouted to Viger, whom he could see standing on the pilot house. Viger ordered the stern of the *Morning Star* put to the wind so that the shattered bow would ship the least possible amount of water.¹⁰ The first mate, who had been below, was ordered to clear away, lower the boats, and stand by for further orders.¹¹

At each moment the situation became more desperate. The bark was swept under the guard of the steamer,¹² and was drawn into the paddle wheel which she ground to pieces.¹³ Every sea not only hurled the *Courtland* against the hull of the *Morning Star*, but also pounded the bark against the overhanging deck of the steamer. Men sent below to find out the extent of the damage reported to Captain Viger that water was rushing into the hold "in torrents." In desperation the master of the *Morning Star* tried to work his vessel ahead to get sea room to lower the boats and to save his ship from the cruel pounding of the bark. The condition of the steamer must have made the maneuver impossible. Viger must have known then that his own vessel was finished.

10. *Detroit Advertiser and Tribune*, June 23, 1868.

11. "Abstract of the Protest of Captain Viger," and *Detroit Daily Free Press*, June 23, 1868.

12. In a sidewheel steamer, the wheel projects beyond the side of the hull. The decks of such steamers are usually built out over the side to cover the wheel. Consequently, when the *Courtland* swept under this projecting deck, each sea would sweep her against the hull of the steamer and also up against the decks. The leverage and pounding would be tremendous under such circumstances.

13. Statement of G. R. Chase, Cleveland lawyer and passenger aboard the *Morning Star*. *Detroit Advertiser and Tribune*, June 23, 1868.

The captain then rushed into the cabin where a most frightful scene awaited him. Women, half dressed and completely wild with excitement were running hither and thither, deaf to the entreaties of those who were beseeching them to be composed and crying for the very assistance they were in reality neglecting.¹⁴

The captain went back on deck, hoping to see the light of a vessel that would bring aid. But the *Morning Star* was going fast. Harbottle seized Viger by the leg and begged him "for God's sake" to come aft, for the steamer was sinking faster than the captain realized. Viger turned and sped for the stern, "the water pressing hard after him and rising around him while the cabin was going to pieces beneath his feet." Catching hold of a ladder, he floated free of the steamer. Crawling from one piece of wreckage to another, he came upon a metal lifeboat with which he and a companion saved a dozen lives. The first mate, who had lowered the boats on the starboard quarter, had tried to force the passengers into the boats, and failing in this, allowed the crew to board them because he feared that the suction of the sinking ship would have drowned them all.

About the time when the *Morning Star* left Cleveland, the *R. N. Rice* under Captain McKay cleared Detroit. It was about three o'clock in the morning of Sunday, June 21, that the mate heard cries from the water a short distance to starboard. Believing that he had run across a few sailors adrift, McKay stopped and swung his ship around. Only when he drifted into seas littered with life preservers, mattresses, furniture and debris did he realize that he had sailed into tragedy. It could have been only a few minutes later until McKay learned that the wreckage was from the other ship of his company. Two boats were lowered to search for survivors, aided by a sailing vessel which also had entered the area. Although the *R. N. Rice* cruised until after the sun had risen, only a few persons were recovered. At a quarter past seven in the morning, the steamer slowly picked her way through the remnants of the *Morning Star* which the wind and waves had strewn for five or ten miles over the lake. Five miles out of Cleveland, another boat load of survivors was picked up and carried into port.

Word of the disaster did not reach Detroit until Sunday when Carter received a dispatch from Cleveland. "*Star* lost thirty miles from Cleve-

14. *Detroit Free Press*, June 23, 1868.

land. Twenty persons drowned, Mor[e]ton among the number.”¹⁵ The *Detroit Free Press* reported that the steamer was valued at \$100,000 and was not insured. The total number of casualties from the two vessels is not known, although most estimates for the steamer set the loss of life at 26. Boats and divers, working over the wreck, found that little of the upperworks of the steamer survived the pounding given by the *Courtland*. The hull, engines, part of the cargo, and a few bodies were all that were found.¹⁶

There are few things more appealing to the imagination than a disaster at sea, and the impact must have been greater in that day when steamers were proportionately more important than they are now. In spite of its sentimentalism perhaps the *Detroit Free Press* revealed the emotion that was felt by many.

And though many a hearth is made drear and lonesome, and though the wild waves on that fearful night engulfed all that was dear to many a heart, still from many a trembling lip are faltered words of thanksgiving to Him who rules the storm for the almost miraculous preservation of those snatched from the jaws of the hungry breakers.¹⁷

There is no reasonable doubt that the *Courtland* was at fault in the collision. The steamer's lights were burning brightly; those of the *Courtland* were not. The bark could see the *Morning Star* while the watch of the steamer could not see the *Courtland* until it was too late. And never, during the minutes that had elapsed between the time when the lights of the *Morning Star* were sighted by Brown on board the *Courtland* and the collision, was any order given aboard the bark to change her course. To those who censured Viger, Eber Brock Ward of Detroit summed up the case in a letter written to the *Cleveland Leader*.

The *Morning Star* was running on her direct course from Cleveland toward the Point au Pelee passages. Her lights were all burning brightly and in their proper places . . . The night was very dark but not thickly . . . About ten minutes before the collision the mate (of the *Courtland*) took the light from the starboard . . . into the cabin . . .

The conclusion is therefore irresistible that the terrible loss of life and property consequent on that collision was entirely owing to the fact that there was no light on the schooner that could by any possibility be seen by the crew of the steamer . . .

15. *Detroit Free Press*, June 22, 1868.

16. *Cleveland Leader*, June 24, 1868, cited in *Annals of Cleveland*, vol. 41, p. 25. *Detroit Free Press*, June 27, 1868.

17. *Detroit Free Press*, June 23, 1868.

Captain Vigor [*Sic*] of the *Morning Star* has been more or less censured because he did not save the passengers after the collision had occurred . . . Any one who can fairly reason upon the subject will readily see that the captain of a steamer that is rapidly sinking on a dark night on the broad lake is almost powerless to control and save his crew and passengers as the mayor of a city would be to save its inhabitants when a volcano of fire was rapidly covering the houses with melted lava . . .¹⁸

The burden of the loss of the *Morning Star* and the *Courtland* was not Viger's but this fact could only have brought cold comfort to the company. Within a scant three weeks since its beginning, nearly half of the assets had been wiped out with no insurance to cover the loss. A terse statement initialed by David Carter pinned to the first annual report to the stockholders summarized the situation. "Suffered Loss of *Morning Star* this year & our business badly Effected. [*sic*]"¹⁹

The collision left a gap in the service. Owen officially announced the loss to the directors at their meeting on June 27, 1868, and reported that he had made arrangements with the Boston Wrecking Company to raise her. Both this and a subsequent attempt were unsuccessful.²⁰ While waiting for the outcome of the first salvage operation, Owen, Gardner and Pierce were appointed a committee to charter a steamer to replace the *Morning Star*. Their choice fell upon the *Northwest*, which was operating from Detroit to Sault Ste. Marie and Marquette. The D & C purchased her from the Goodrich Transportation Company for \$150,000. Of this sum, \$15,000 was paid by the sale of the boilers and engines of the old *City of Cleveland* and \$20,000 in cash. The balance was due in 1868 and 1869. An advertisement inserted in the *Detroit Free Press* announced to the company's patrons that the steamer would soon be placed upon the route.²¹

The annual report at the end of the first season of the Detroit & Cleveland Steam Navigation Company did not make pleasant reading. The net earnings of the steamers, added to the \$6,900.03 taken over from the Detroit and Cleveland Steamboat Company, totaled \$67,828.12. Dis-

18. Quoted in the *Cleveland Leader*, August 5, 1868, and edited in the *Annals of Cleveland*, vol. 41, pp. 26-27.

19. From an envelope entitled: *Reports and Papers Connected with Annual Meeting 1868 & 1869. D & C Papers.*

20. *Record of the Board of Directors' Meetings (1868-1897)*, pp. 101-102; pp. 102-103. The second attempt was made in 1872; p. 111. *D & C Papers.*

21. *Detroit Free Press*, July 2, 1868.

bursements for the year, including \$50,752.22 paid to the Goodrich Transportation Company for the *Northwest*, left a scant balance of \$6,599.45. The estimated bills payable in the next season totaled \$67,000. Of this, \$50,000 was for the final payments on the *Northwest* and \$12,000 was for the necessary repairs and outfit for that vessel during the winter. With this debt, prospects for 1869 were not bright, but neither were they hopeless. Net earnings for 1868 had been \$67,828.12. Theoretically, if this figure could be maintained, and if there were no further accidents or extraordinary expenditures, it was barely possible that the D & C could break even and clear off its debts. Actually, expenses were bound to increase, for after the loss of the *Morning Star*, the company insured its steamers. Even so, if all went well, the deficit would not be excessive, but dividends still lay in the future.

Earnings did increase in 1869, which, added to the sale of scrap iron from the *R. N. Rice* and the amount left in the books at the end of the last season, brought the receipts of the company to \$78,421.52. Outfits, insurance, taxes and the final payments on the recently acquired steamer drove disbursements up to \$89,044.90, a difference of \$10,623.38, which was borrowed from John Owen. Next year the financial standing of the company improved. After all deductions were made from the earnings, there remained a surplus of \$18,684.72. From this amount the directors declared the first dividend of a dollar a share, or a total of \$12,000, which left on the books a small balance of \$6,684.72.²²

This was to be the common practice. After all expenses were deducted, profits were distributed in dividends at irregular intervals and in varying amounts. From 1870 through 1874 there was never more than \$7,000 at the close of the season.²³ With occasional exceptions, this was to be

22. Record of the Stockholders' Meetings (1868-1897), pp. 5, 7-8, 10-11. *D & C Papers*.

23.	Dividends declared	Amount left in treasurer's hands at the end of the year.
1870	\$12,000	\$6,184.72
1871	54,000	2,384.18
1872	72,000	1,728.91
1873	48,000	6,808.14
1874	48,000	4,067.16

Record of the Stockholders' Meetings (1868-1897), pp. 10-11, 16-17, 23, 27. *D & C Papers*.

the financial pattern until the first decade of the twentieth century. Each season was expected to pay for its own debts, including not only those which accrued from the operating expenses in the daily routine of the steamers, but also those obligations contracted for the outfitting and preparation of the ships at the beginning of the year. When navigation opened each year, the company was in debt until the earnings of the steamers cancelled the annual obligations. There were no regular reserve funds to cushion the company in an emergency or in a period of depression.

The years from 1871 to 1873 were prosperous. Earnings in 1871 were sufficient to wipe out all the debt and enable the directors to congratulate the stockholders on the financial soundness of their company. Not only was there this happy news to report, but the ships themselves were in excellent condition. The winter of 1871 and 1872 had been spent in repairing the engines of the *Northwest*, for the record of that steamer had been marred by the erratic performance of her machinery. Temporarily, at least, it was money well spent, for the following years the directors reported that the ability of the company to maintain its advertised schedule "helped to inspire confidence with the traveling public." The welfare of the D & C could be traced in the gross income which rose from \$161,505.12 in 1871 to \$173,520.95 in 1872. Along with this increase expenses climbed as well. Some of this was due to the larger amount of tonnage handled and the greater number of passengers carried, but part of the rise in costs was attributable to labor. Dock men had struck both in Detroit and Cleveland, seeking an increase in the wage rate from thirty cents to forty cents an hour in Detroit and from forty to fifty cents an hour in Cleveland. The increased costs, however, could not hide the fact that 1872 was the most successful year of the D & C since its incorporation.²⁴

There seemed to be no reason why such prosperity would not continue. In the early months of 1873 the Detroit wholesale market was exceptionally firm, and trade was more brisk than usual for the winter months. By late March, as lake shipping was preparing for the coming season, the *Detroit Free Press* reported a large demand for vessels. In the East there

24. Record of the Stockholders' Meetings (1868-1897), pp. 13, 15-16, 18-19. *D & C Papers*.

were ominous tremors in the financial structure of the nation, for the earlier predictions of New York and Boston financiers of an easy money market were not being fulfilled. The financial columns of the *Detroit Free Press* sensed the growing seriousness of the position, and after speculating on its causes, concluded:

We are inclined to believe . . . that the real origin of the present crisis arises from over investment in various forms, especially in the building of railroads and in the general extravagance of the people.²⁵


The paper continued to blame the fitfulness of Wall Street upon over-investments in railroads and urged a policy of retrenchment and a reduction of imports.

As yet Detroit was unaffected. While business conditions were dull, this could be explained as part of the annual business cycle and did not appear unusual. Indeed, "the prospects were never better for a prosperous year." As the opening of navigation approached, money was in demand, but Detroit banks found no difficulty in making loans at 10 per cent interest a year to borrowers who could furnish first class securities as collateral. The optimism of the *Detroit Free Press* continued, "We see no reason to change our views that we are likely to have a very prosperous year, with an easy money market." In marine circles these anticipations were fading, for ships dependent upon the grain trade were obliged to offer low freight rates in order to entice the reduced amount of grain that was moving to market.

Jay Cooke's failure was announced on September 19 by the *Detroit Free Press*, which maintained that while there would be difficulties for some, ". . . there would be no reason to apprehend that the effects will be either widespread or lasting." Detroit's financial structure was believed to be unusually strong, since none of its banks were directly linked with Cooke. Yet there were signs that all was not well; the grain market remained low and shipments nearly ceased. In the autumn of 1873 vessels bound up the lakes were trimmed only by ballast, for owners were sailing their ships light rather than stand the expense of handling low rate cargoes. By November there was mounting unemployment, accounted for in part by the seasonal lay-off by railroads and factories.

25. *Detroit Free Press*, March 30, 1873.

(To be continued)



The American Grain Trade of the Great Lakes, 1825-1873

By THOMAS D. ODLE

PART III



MILWAUKEE'S EARLIEST RAILROADS, the Milwaukee and Mississippi, and Milwaukee and Watertown, both built in the early 1850's, were also directed to the Rock River Valley. Another goal was the Mississippi Valley, beyond the Rock River Valley, and by the late 1850's the Milwaukee and Prairie du Chien, and Milwaukee and La Crosse Railroads had reached that river and had begun to divert a portion of the grain trade of the upper Mississippi Valley to Milwaukee.

Milwaukee's position in 1860 as the fourth largest grain receiving point in the United States was based on the grain which Milwaukee received from the Rock River and Mississippi River regions. The continued improvement of Milwaukee's nearby forested hinterland after 1860, however, made that city in 1870 second only to Chicago in the United States as a grain receiving point.

In general, the development of the grain trade at Milwaukee, Chicago, Toledo, and Cleveland reflected the gradual diversion, stage by stage, of Western trade from the Mississippi River route to the Great Lakes route. At other ports on the Great Lakes, however, the development of the grain trade reflected the gradual settlement of the Great Lakes area. Here the growth of the grain trade was relatively slow and depended almost entirely on the surplus grain produced nearby. These ports were not connected by canals or railways with the southern part of the East North Central area. In this group were the Ohio ports of Huron, Milan — which was connected in 1839 by a ship canal to Lake Erie¹ — Ashtabula, and Fairport; the Michigan ports of Detroit, Monroe, and St. Joseph; the

1. *The Milan Canal*, by Charles E. Frohman, *INLAND SEAS*, vol. 2, pp. 50-53.

northern Wisconsin ports of Sheboygan, Manitowoc, and Green Bay; and the Pennsylvania port of Erie.

Of these, Detroit was by far the largest exporter of wheat and flour, and that city's leadership was based on the fertile prairie-studded land of the broad belt of the southern counties of the state of Michigan. Monroe, a port on the Detroit River some forty miles below Detroit, was also an outlet for this region, but Monroe was not so serious a competitor of Detroit for the trade of this region as was Toledo. In 1836 the Erie and Kalamazoo Railroad, one of the earliest railroads of the Middle West, was built from Toledo into this region. The main line extended some thirty-five miles to Adrian, Michigan, in Lenawee County.² In the following decade, after the opening of the Wabash and Erie Canal, Toledo also received a portion of the surplus grain of the more western region of the southern counties of Michigan. The grain from this region was carried over a plank road from Sturgis, Michigan, near the Indiana state line, to Fort Wayne, Indiana, and was there loaded on canal-boats for shipment to Toledo.

Most of the grain of the western counties of southern Michigan, however, was tributary not to Toledo but to St. Joseph, a port on Lake Michigan. The location of this port was at the outlet of the St. Joseph River, a river whose meandering course led through southern Michigan and northern Indiana and was navigable by steamboat for 60 miles inland from Lake Michigan. Steamboats especially adapted for the St. Joseph River trade operated up and down the river.

The construction of railroads through the southern Michigan counties, however, resulted in changes which all but destroyed the grain trade not only of St. Joseph but of Monroe as well. After 1837 two railroads were begun by the state of Michigan which ran through the southern counties

2. An account-book, 1838-1841 of the firm of Spafford and Smith of Tecumseh, Michigan, offers information on the early trade from this region. This document is in the possession of Professor Verner W. Crane of the University of Michigan. Spafford and Smith dealt mainly in flour with only an occasional shipment of wheat and sent their consignments to Toledo via the Palmyra and Jacksonburgh Railroad and the Erie and Kalamazoo Railroad. Their shipments went forward to various Toledo firms for delivery to consignees in Buffalo, Rochester, Utica, Troy, Brooklyn, and New York City. The Tecumseh firm charged three to five cents a barrel for their marketing services with lower rates charged for larger shipments.

of that state. These two railroads were the result of the state of Michigan's comprehensive but ill-fated plan of internal improvements. One line — the southern line — was planned as a route from Monroe to New Buffalo, on Lake Michigan. The other line — the central road — was to extend from Detroit through Ypsilanti, Ann Arbor, and Jackson to St. Joseph. The sections of these railroads which had been completed by the state were sold to private individuals in 1846.

Soon thereafter, in 1849, the management of the Michigan Southern Railroad changed the main eastern terminus of the line to Toledo and thereby cut off Monroe's grain trade. In the same fashion the grain trade of St. Joseph was all but destroyed by the Michigan Central Railroad, which changed its western terminus from St. Joseph to Chicago, reaching the latter city in 1852. After the route to Chicago was completed the Michigan Central cut rates below those offered by the river steamboats operating from Niles, Michigan, to St. Joseph, and gave lower relative rates from Niles to Chicago than from the rest of Michigan. This type of competition ruined St. Joseph's grain trade.³ Detroit's grain trade, however, was benefited by the Michigan Central Railroad. By 1870 Detroit had crept up to the position of the fifth largest grain receiving point in the United States. In that year the receipts of the larger primary grain markets were as follows:

	<i>Total grain, including flour reduced to its equivalent in bushels</i>
Chicago	61,315,593
Milwaukee	24,857,871
St. Louis	24,313,791
Toledo	23,714,510
Detroit	14,045,868
Cincinnati	8,769,811

3. John Thompson, J. W. Brooks, and Solomon Drullard, *Opening Remarks of John Thompson, Esq., on behalf of the Railroads, against a Pro Rata Law; and the testimony of J. W. Brooks, Esq., before the Select Committee of the [New York] Assembly; also the testimony of Solomon Drullard, Esq., General Freight Agent New York Central Railroad*, 12.

The year 1870, however, was the high mark of Detroit's grain trade; in the succeeding years the grain trade of that city slowly declined as more diversified farming began to be practised in the southern Michigan counties.

The opening of the Great Lakes-Erie Canal route confronted the Mississippi River with a competitive route by which the grain and flour of the East North Central area might be shipped to the New England-Middle Atlantic states market. One could measure accurately the progress of the diversion of trade via the new route if he were able to compare the shipments of grain and flour to the Eastern market for a series of years from New Orleans, Buffalo, and Oswego. This measurement can not be made exactly because of the lack of statistics for grain and flour shipments from New Orleans. There are reliable statistics from 1835 to 1860 of the grain and flour receipts at New Orleans, Buffalo, and Oswego, but as the receipts at New Orleans served to supply the southern market for breadstuffs and also the New England-Middle Atlantic states and foreign markets, a comparison of the receipts at the three cities fails to indicate the diversion accomplished by the new route.

For the years 1842 to 1851, however, statistics of the shipment of flour from New Orleans to the north Atlantic ports of the United States and to foreign markets are available so the following table shows the effectiveness of the competition of the new route for those years:⁴

4. *Hunt's Merchants' Magazine*. See vols. 7-25 inclusive. Auditor of the Canal Department, *Annual Report on the Tolls, Trade and Tonnage of the Canals of the State*, New York Assembly Document, No. 133 (1876), table no. 26. The exports of New Orleans to foreign ports must be included for a fair comparison because part of the grain and flour receipts at Buffalo and Oswego served to supply the export trade. Further evidence of this diversion to the Great Lakes-Erie Canal route may be shown by a comparison of the receipts at the north and south termini of the canal system of Ohio.

	<i>New Orleans, flour shipments in bbls. (216 lbs.) to foreign ports and north At- lantic ports of the United States.</i>	<i>Eastward flour ship- ments in bbls. (216 lbs.) through Buffalo and Oswego.</i>
1835		224,304
1836		233,745
1837		192,817
1838	not available	388,010
1839		467,836
1840		865,920
1841		956,048
1842	252,479	882,129
1843	296,561	1,201,464
1844	249,969	1,325,841
1845	234,018	1,255,069
1846	493,277	1,909,312
1847	1,273,406	2,679,180
1848	426,650	2,020,501
1849	712,259	2,024,810
1850	102,452	1,977,134
1851	426,283	2,209,130

The steady increase shown in the shipments of flour through the Buffalo and Oswego gateways was in keeping with the progressively greater surplus of grain produced in the West; shipments through New Orleans, however, do not show such a steady growth. The erratic variations in the New Orleans statistics reflect the increasing dependence of the grain trade of that city on the uncertain foreign markets. The marked increase in the volume of shipments in 1847 was due to a failure of the potato crop in that year both in the eastern United States and in Europe.

The Pennsylvania canal system also deserves to be considered as a route from the West to the Eastern market for breadstuffs even though the diversionary effect of this outlet was negligible. The through route of the Pennsylvania canal system — called the Main Line — was opened in 1834 between Pittsburgh, on the Ohio River, and Philadelphia. This mixed canal and railroad route was an eastward extension of the Mississippi River system, just as the Erie Canal was an eastward extension of the Great Lakes. The most difficult portion of the mountainous country traversed by the Main Line was overcome by means of a 41-mile long

portage railway; and the Main Line also included an 81-mile long railroad from the Susquehanna River to Philadelphia.⁵ Because of the broken character of the route the cost of transportation was excessively expensive. Portable canal-boats began to be used in 1842 to cut down the cost, but even with that improvement the Pennsylvania Main Line was able to serve as a through route only for the grain and flour of the East North Central area near Pittsburgh, the western terminus of the Main Line.⁶ The limitations of Pennsylvania's canal system as a through route can be seen by a comparison of the statistics of the eastward canal shipments from Pittsburgh, Buffalo, and Oswego. In 1849, a typical year, these were as follows:⁷

	<i>Wheat bushels 60 lbs.</i>	<i>Flour barrels 216 lbs.</i>
Pittsburgh	6,300	139,202
Buffalo	4,026,000	1,216,503
Oswego	1,003,462	808,307

Neither Philadelphia's Main Line of canal and railroad nor Baltimore's Chesapeake and Ohio Canal (the latter canal was built by the State of Maryland but never completed beyond the mountains to the Ohio River, owing to engineering and financial difficulties) was able to match the success of the Erie Canal. The latter was an outstanding success because New York State had the level route of the Hudson River Valley and Mohawk River Valley to the West. This level route, requiring very little lockage, was ideally suited to the construction and operation of a canal. The other Eastern seaboard states, cut off from the Western United States by the Appalachian and Allegheny mountain ranges, did not enjoy the advantages of New York. However, in the 1850's the Pennsylvania and the Baltimore and Ohio Railroads (built over much the same routes as the earlier canals) were successful in providing a cheap transportation service between the East and West.

5. See Avar L. Bishop, "The State Works of Pennsylvania," Connecticut Academy of Arts and Sciences, *Transactions*, vol. 13 (1907), p. 149 ff.

6. Louis C. Hunter, "Studies in the Economic History of the Ohio Valley," Smith College, *Studies in History*, vol. 19 (1933-34), p. 92.

7. Pennsylvania Board of Canal Commissioners, *Annual Report with Accompanying Documents for the Year Ending November 30, 1849*, p. 66; *New York Assembly Document*, No. 133 (1876), table no. 26.

(To be continued)



THE *Canada*, Royal Canadian Yacht Club cutter, designed by William Fife of Fairlie, built in Oakville, Ontario, by Captain James Andrew. First winner in 1896 of the trophy named after her, *Canada's Cup*. Photograph by Rowley Murphy. (See page 77.)



CUTTER *Cyprus*, R. C. Y. C. Toronto, designed and built by William Fife, 3rd. Broken up about 1900. Photograph by courtesy of Rowley Murphy. (See page 81.)



CUTTER *Sylvia*, R. C. Y. C. Toronto, designed by Alexander Cuthbert, built about 1894, and sloop *Nox*, R. Y. C. Rochester, designed by William Fife of Fairlie, about 1892. Photograph by courtesy of Rowley Murphy. (See page 81.)



THE *Imperial Woodbend*, new sister ship of the *Imperial Leduc* and *Imperial Redwater*, largest lake tankers in the world. Photograph by courtesy of Imperial Oil Limited of Canada. (See page 129.)



DETROIT, MICHIGAN. Photograph by Carl McDow. (See page 83.)

THE MAJOR PORTS OF THE GREAT LAKES

TONNAGES AND PRINCIPAL TRAFFIC IN 1948*

LEGEND

	Grain		Petroleum & products
	Cement		Sand & Gravel
	Coal		Iron & Steel
	Other		Stone

Note: The pairs of tonnage symbols of the ports indicate Receipts (left) and Shipments (right). Where only one occurs an "R" or "S" appears on the symbol.

Scale of Miles



*The term "major" is applied to ports having a total traffic, excluding local and intraport, of more than one million short tons. Commodities are indicated only when their volumes for a port are individually over one-half million short tons.

AGBALLERT



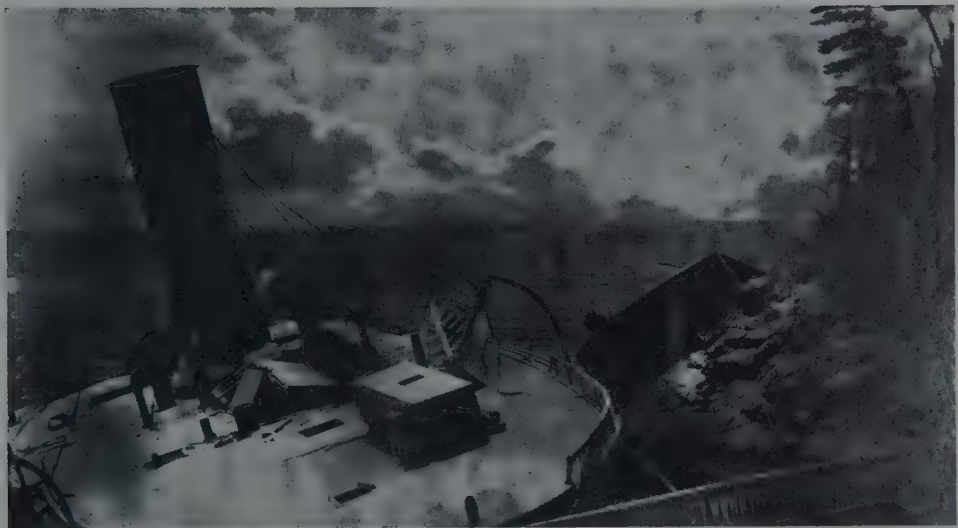
THE *Mackinaw*, U. S. Coast Guard ice breaker. U. S. Coast Guard official photograph.
(See page 129.)



COAST GUARD CUTTER, *Taboma*. Photograph by Perry Cragg, *The Cleveland News*.
(See page 129.)



THE *J. S. Ashley*. Photograph by Fred W. Dutton. (See page 134.)



THE STEAMER *Lafayette* wrecked on the north shore of Lake Superior in the storm of November 27-28, 1905. Photograph by courtesy of Captain H. C. Inches. (See page 134.)



THE SCHOONER *Oriole II*, designed by A. Cary Smith, built by Captain John Driscoll, 1886, at Toronto, broken up in 1906. Photographs by courtesy of Rowley Murphy.
(See page 81.)



THE BRONZE SCHOONER, *Oriole III*, designed by A. Cary Smith in 1903, shown running out of the Eastern Gap, Toronto, beside the S. S. *Toronto* in 1912. (See page 81.)

The Major Ports of the Great Lakes— Their Tonnages and Principal Traffic in 1948

By ALBERT G. BALLERT

A LONG THE SHORES of the Great Lakes are fifty ports each of which handled over a million short or net tons of traffic during the 1948 navigation season. This volume, exclusive of local and intraport traffic, provides the basis for the selection of "major" ports in the accompanying map.¹ In number, this equals all of the ports of such magnitude along the Atlantic coast from Maine to Texas. As in the case of several large Great Lakes ports, the gross extent of the seaboard ports was sometimes subdivided into several units in making this comparison. Lest one might depreciate the significance of the Great Lakes ports as being principally handlers of bulk cargo, it should be recognized that most of the coastal ports also gain major status from their bulk traffic.

Of the fifty ports on the Great Lakes having over a million tons of commerce in 1948, 42 are along the United States shores and the remaining 8 are Canadian. These focal points for lake traffic are distributed as follows: Lake Michigan, 15; Lake Erie, 13; Lake Superior, 7; Lake Huron, 5; Lake Ontario, 5; and the Lower Rivers (waterway connecting lakes Huron and Erie), 5. The American ports in this group represent over a third (37 per cent) of the 115 along the United States shores of the "Inland Seas" which had more than local freight traffic in 1948. Data available for Canadian ports indicate that at least 53 had non-local cargo traffic during the same year.

The distribution of American ports having various volumes of traffic is shown in Table 1. This tabulation suggests that any additional million-

1. See map, between pages 107 and 110. Sources used, unless otherwise indicated, are those listed on the map. The assistance of the Great Lakes Regional Statistical Office, U. S. Corps of Engineers, Detroit, on a number of occasions is gratefully appreciated. The Ontario Department of Planning and Development, Toronto, also provided valuable aid.

ton ports probably will lie along the shores of lakes Huron or Michigan or the Lower Rivers. In 1949, Drummond Island gained this status through limestone shipments and, in 1950, Trenton (south of Wyandotte) was added to the group as a result of the increasing receipts of coal.

TABLE 1 — NUMBER OF AMERICAN PORTS OF THE GREAT LAKES, BY TRAFFIC TONNAGE AND AREA, 1948 (IN 000's OF SHORT TONS)

Area	over 5,000	1,000 to 5,000	500 to 1,000	250 to 500	100 to 250	50 to 100	under 50	Total
Lake Michigan	5	10	4	4	2	4	12	41
Lake Superior	3	1	0	1	2	3	14	24
Lake Erie	8	4	0	1	0	0	8	21
Lake Huron	1	3	5	0	1	1	2	13
Lower Rivers	2	2	3	0	0	2	2	11
Lake Ontario	0	3	0	0	0	1	1	5
Total	19	23	12	6	5	11	39	115

A review of the traffic of American Great Lakes ports in 1928 and 1938 indicates there were 34 major ports in the earlier year and 32 in the latter. Ports which first reached the million-ton mark during the last two decades are: Saginaw River in 1930, Muskegon in 1934, Ecorse about 1934, Port Inland in 1935, Oswego in 1938, Sodus Bay in 1940, Marblehead in 1942, and Kewanee in 1943. Port Huron fell from the ranks of major ports after 1928, and quarries providing the traffic at Rockport were discontinued after 1948. Some of the present major ports have had less than a million tons annual commerce on several occasions in the recent past. Thus, in 1948 more Great Lakes ports were handling over a million tons of traffic than in any previous year. The aggregate tonnage of the four leading commodities carried on the lakes, iron ore, coal, stone, and grain, also exceeded all previous years with a total of 185.6 million short tons.²

The settlements which have accompanied the development of the major ports on the Great Lakes have been marked by a wide variance in size. They indicate well the principle that population concentrations occur "where commerce breaks bulk and changes the agent of transporta-

2. Lake Carriers' Association, *Annual Report of the Lake Carriers' Association*, 1950, Cleveland, 1951, p. 46.

tion." Urban centers at such lake-head points as Chicago, Buffalo, and Duluth-Superior bear out this corollary in a striking way. Where settlement has not taken place at a port, it has been due to private development. Examples are Port Inland, Buffington, and Sodus Bay. The small population at a number of the ports indicates, however, that additional favorable factors are required in order for a "break-bulk" point to flourish.

The character of the traffic of the major ports also shows great differences. Whereas at Marblehead, Ohio there are only shipments (limestone), at Midland, Ontario receipts (principally grain) usually account for all of the traffic. Conditions are only slightly less striking at Sandusky, Ohio (for shipments) and Green Bay, Wisconsin (for receipts). At two of the major ports, Frankfort, Michigan and Kewannee, Wisconsin, carferry traffic represents the total lake commerce. While these are examples of exceptional specialization, the lack of diversity is characteristic of the commerce of many Great Lakes ports.

The ports northward of and including Escanaba and Alpena, Michigan are all principally shipping points with the exception of Sault Ste. Marie, Ontario. Southward from the ports of Green Bay, Wisconsin and Saginaw River, or that portion of the Great Lakes region lying within the Manufacturing Belt, lake receipts are generally much greater than shipments. Several coal ports provide exceptions but, among the metropolitan centers of this area, Toledo is the only notable example. Few ports approach a balance between inbound and outbound tonnages. By and large, a relatively few commodities make up most of the commerce at the American and Canadian ports.

First among the ports to handle over a million tons of traffic were Buffalo and Escanaba. In 1882, Buffalo coal shipments — largely anthracite — reached this volume and, about the same time, Escanaba's annual iron ore shipments were for the first time more than a million tons.

In 1948, the volumes of coal and stone carried on the Great Lakes reached new all-time records, and the ore traffic was at a new peacetime high (only 1942 and 1943 were greater).

The leading port in tonnage on the Great Lakes in 1948 and the second ranking port in the nation was Duluth-Superior, the world's No. 1 ore shipping center. Over 54 million short tons were handled, representing

about one-half the nation's production for the year. Among the 15 ore-receiving ports, Cleveland, Ohio ranked first. In this group only Port Colborne, Ontario had receipts under one million tons.

In the coal and stone trade, Toledo, Ohio and Calcite, Michigan, respectively, hold leading world positions. In 1948 their shipments of these commodities were Toledo, 23.4 and Calcite, 13.1 million tons. The ports have since set new records with Toledo's coal shipments passing 26 million tons in 1950 and Calcite's limestone shipments reaching nearly 14.2 million tons in that year.

Other ports which lead in the shipments of particular commodities are Fort William - Port Arthur, Ontario for grain, Indiana Harbor (East Chicago), Indiana for petroleum and products, Grand Haven, Michigan for sand and gravel, Alpena, Michigan for cement, and Buffalo, New York for iron and steel. Port Arthur and Thorold (on the Welland Canal), Ontario appear to be the leading shippers of pulpwood and newsprint, respectively.

The lake grain traffic includes commodities having a considerable range in weight per bushel — from oats averaging 32 pounds (American) or 34 pounds (Canadian), to wheat at 60 pounds. Grain shipments from Fort William - Port Arthur totaled nearly 6 million tons in 1948 or just about double the Duluth - Superior tonnage. Of this amount, 4 million tons or 133.4 million bushels were wheat. Barley was second in weight (805,000 tons), but third in number of bushels. Oats were next in tonnage, followed by flaxseed and rye. Nearly a million tons (989,000) of the Canadian twin ports' grain went to Midland, at the head of Georgian Bay, for transshipment. Buffalo, however, with grain receipts of slightly over 3 million tons, is the leading Great Lakes receiving port for this commodity.

Due to the physical limitations of the accompanying map, it is not possible to subdivide the receipts and shipments of the ports into domestic, lakewise foreign, internal (via New York Barge Canal or Illinois Waterway), and overseas traffic. The last-mentioned classification is of particular interest in connection with the proposed St. Lawrence Seaway project. In 1948, the overseas traffic of American Great Lakes ports was 90,139 tons. Receipts totaled 46,765 tons and shipments amounted to 43,474 tons. A decade earlier (1938) the receipts had been 179,526 tons

and the shipments were 68,603 tons. A great decline in receipts of European woodpulp was a major factor in the change.

The traffic of the Sault Ste. Marie canals in 1948 was the highest of any time except for the war years 1942-44. Up- and downbound commerce totaled over 115.4 million tons. This was 4.3 times the volume passing through the Panama Canal during the same year. Few commodities account for most of the Sault's tonnage, however, whereas a multitude of products pass through the Panama Canal.

From this brief summary it becomes apparent that there are many facets for investigation. For example, commodity traffic on the Lakes may be affected by economic conditions, strikes, length of navigation season, etc. and the commerce of the ports may, in addition, be altered by the hinterland supply of and/or need for commodities which are handled by lake bulk carriers.

The commerce of the American ports can be secured in detail from the *Annual Report of the Chief of Engineers*. Statistics for Canadian ports are not, however, obtainable from any published sources. The yearly *Shipping Report* of the Dominion Bureau of Statistics contains only figures for foreign cargoes loaded and unloaded. As a result, the compilation of the total commerce of Canadian ports frequently is difficult. Where local authorities cannot provide statistics on port commerce, it becomes necessary to use various sources. The figures obtained by use of the latter method may not be precisely correct, but it is quite certain that any error is but minor. The map and table which have been developed are believed to be the first presentation to include all major ports of the Great Lakes.

Note on the map: The tonnage of receipts and shipments at each port is indicated in the table and by block piles near the port. The piles represent the multiple and/or fraction of a unit which equals one million short tons. Various commodities are shown by the different patterns which appear in the legend. A commodity pattern is used in association with the block-pile symbol only when it accounts for at least a half million tons of receipts or shipments at a port. Hence, the map shows only the principal commodities in the traffic of the major ports, but such commerce usually represents a high proportion of the total.

A German Poet at Niagara

By EDITH WIRT

ONE OF THE EARLIEST POETS to celebrate Niagara in song was Nikolaus Niembsch von Strehlenau, better known by his pen name Nikolaus Lenau. Born in 1802 in Csabad, Hungary, of an ancestry in which the blood of three races crossed (German, Hungarian and Slav), he became one of the finest poets who wrote in the German language. Unsettled home conditions formed the atmosphere of his early years. His profligate father died early and after his mother's remarriage to a physician, the family took up residence for a while in the lovely Tokay wine-growing district, not far from the puszta. These surroundings proved to be romantic fare for the budding poet. However, in order to attend school in Pest, he had to say farewell to this "land of the Magyars, where the clear waves of the Bodrog merrily consort with the green ones of the Tisza, where on sun-blest terraces the Tokay grape laughs happily."

Young Nikolaus attended schools in Buda, Pest, Vienna and Pressburg. At universities and other institutions of learning he studied successively philosophy, law, agriculture and medicine, applying himself to each study with zeal, only to emerge dissatisfied and to abandon it for another. Finally when an inheritance made him financially independent, he gave up all efforts to enter a profession and determined to devote himself to poetry.

The publication of his first poems in 1831 led him to Stuttgart in Germany, where there was brisk literary activity at this time. There he enjoyed the friendship of several fine poets, among them Uhland and Kerner. This handsome and elegant outlander, who also played the violin with great virtuosity, received recognition as a person, as well as a poet. Henceforth, Stuttgart was to be his second home after Vienna.

It was in 1832, while another volume of his poems was being made ready for publication that he decided to go to America. His friends tried to dissuade him, but were not successful. Tired of the surface civility and sham politeness of the Old World, the stifling political situation and the censorship, Lenau dreamed of a life of freedom in the New World. There, where man and nature were unspoiled, he hoped to conquer his weariness of life, to which an unhappy love affair contributed, and a melancholy which was increasing its hold on him.

After a stormy crossing of seventy-four days he landed near Baltimore and made his way west. He bought 400 acres of virgin land in a newly-opened section of Ohio, in Crawford County near Bucyrus and spent the autumn and winter waiting for the title in Lisbon.

His decision to return to Europe was immediate, for in America this ardent lover of liberty met with disillusionment. Instead of the kind of freedom he had expected, he found what he considered a slavish conformity and a levelling of inequalities which he despised. In a letter dated March 5, 1833 he wrote: "Here nature is horribly dull. Here, as you know, there is no nightingale." Instead of wine, he found that Americans drank cider. He also criticized their materialism. "It takes," he opined, "the voice of Niagara to preach to them that there are higher gods than those which are stamped in the mint."

After receiving his land title and visiting his new domain, he left it in charge of a fellow immigrant from Germany who agreed to remit to Lenau a regular rental, but from whom he never heard.

Before leaving America, however, Lenau wished to see Niagara. On horseback he reached Buffalo and the falls in the middle of March. The sight of the mighty rush of water electrified him and formed the subject of three poems: *Niagara*, *Die Drei Indianer* (The Three Indians) and *Verschiedene Deutung* (Varied Meaning). In the last-named poem the poet beholds Niagara's waves dashed to spray in thunderous fall. It is only when they are reduced to spray that they catch the golden sun rays and paint the rainbow across the chasm. So, too, we humans, he muses, are troubled waters and our "I" must be shattered to receive the Iris light.

The rapids plunge and swiftly leaping,
Thunder on by fury rent,
With compulsion toward the glory
Of their own destruction bent.

Since the wanderer hears only the sound of surging waves, he is unmindful of Niagara's abysmal fall which is directly ahead. The poet concludes with:

And so heedlessly he listens
Who to his own fall draws near.
Yet it was the far-off future
Thundered in the prophet's ear.

Still other poems were inspired by the virgin forests of Ohio and the Hudson valley, both of which also made great impressions on the poet.

Upon returning to Europe he found that the poems which had been published during his absence had caught the fancy of the public. He had become famous in two countries, Germany and Austria. A charming personality, extensive travels, great erudition and a knowledge of music rendered him fascinating, especially to women.

His work of creation continued and one beautiful poem after another came from his pen. Dividing his time between Vienna and Stuttgart, he was continually travelling between the two cities by stage-coach. For with the years his restlessness and melancholy were only aggravated. Twice he was engaged to marry, each time to a very fine woman, and each time he felt he could not go through with the marriage. Having studied medicine, he probably suspected the beginnings of insanity within himself. A hopeless love-affair of many years' standing with a married woman of high station further contributed to the complete break-down of his mind in 1844. He died in an insane asylum near Vienna in 1850.

The Great Lakes in Niles' National Register

CONTINUING *publication of excerpts about the Great Lakes
taken from America's leading news magazine during the years
1811 to 1849.*

—The Editor.

Geographical Information—1816

(Continued from INLAND SEAS, Spring, 1952)

There has been a town laid off lately in the reserve, under the direction of the surveyor general, and in conformity with an act of congress passed at the last session. It is situated in the north east quarter of the reserve, on the east side of the river, on a high and beautiful plain. The streets run parallel to the river, crossed by others at right angles. Two avenues of 132 feet wide, cross each other in the centre of the town. The lots are four poles in front by eight poles back; a proportionate number of out lots are laid off adjoining the town. There is a safe and convenient harbor opposite the town, to which vessels, such as are used on the lakes, can ascend. The remainder of the reserve is laid out into lots of eighty acres as nearly as may be, having each one to front on the river, and extending back in form of a parallelogram.

The channel of the Sandusky river through the whole course of the rapids is solid rock, forming a number of excellent mill seats. There has been a mill erected lately at the foot of these rapids, near the fort. Several families reside here, and have built a number of houses and made other improvements; probably, either with the view of purchasing at the sales, or under the fallacious expectation of obtaining preemption rights.

There is a very valuable fishery at the foot of the rapids, where the inhabitants take prodigious quantities of the various kinds of fish with which the lakes abound, but more particularly the white bass† as they

† Dr. Mitchel of New York, in a late notice of some additions to the ichthyology of the U. S. mentions among others, the herring of the lakes, with some interesting remarks on it, which I have no doubt is the white bass here described.

are called, a fish broader, but not so long as the herring, which it otherwise very much resembles, and is highly esteemed. The quantities which may be taking at this fishery is almost incredible. So profusely have some of the inhabitants used this bounty of a good Providence, that large quantities of bass were thrown out at the fishery in heaps, and suffered to putrify; the pernicious effects of which on the atmosphere, is believed by intelligent persons who have visited the place, to have caused the sickness of some of the inhabitants contiguous thereto. A profitable market for these fish has been found in the towns and settlements of the state, into which they have been brought in great quantities. They have been sold at Chilicothe, this summer at \$25 per barrel, and retailed at one dollar per dozen. They are likely to become a considerable article of trade. This fishery, together with the valuable scites (sic) for water works, and other local advantages, must render the lots adjacent to them immensely valuable.

The reservation at the foot of the rapids of the Maumee river, is twelve miles square, which has been laid off and surveyed into four townships of six miles square, of 640 acres each. The whole tract contains about 92,000 acres, the greater part of which is good second rate upland, timbered with oak and hickory. There are some large and rich tracts of bottom on the river, which are mostly prairie; and in the river are some valuable islands, particularly one immediately below the foot of the rapids, which contains about acres of rich prairie, and has been under cultivation several years. This island is surveyed into four tracts and will be offered at public sale with the other lands of the reservation.

A town has been lately laid off within this reserve also, agreeably to an act of congress passed at the last session. It is situated on the eastern bank of the river, opposite to the large island before described, and a short distance below Fort Meigs, on high and level ground, where the river bank has a handsome slope or descent to the water. The streets and avenues, which are spacious, run parallel to the river, crossed by others at right angles. Two avenues of 132 feet wide, cross each other at right angles at the centre of the town, running parallel with the streets. The in-lots are poles in front by poles back; the out lots contain acres each. The channel of the river opposite the town

is deep, and affords an excellent harbor for vessels. Vessels of the tonnage of those with which the lake is usually navigated may ascend the Maumee as high as the town. The local advantages enjoyed by this town are likely to make it a place of importance. Situated at the head of the lake navigation of a large river, which waters a tract of country exceeded by none in richness and fertility, it must one day become the emporium of an extensive commerce. It enjoys likewise the advantage of being contiguous to the rapids of the river which is eighteen miles in length, affording a great many excellent sites for mills and manufactories. Above the rapids there is little or no obstruction to navigation to Fort Wayne, a distance of 70 or 80 miles, and I believe the St. Joseph's and St. Mary's may be navigated many miles higher; the latter to my own knowledge may be, to Fort St. Mary's, within 12 miles of Fort Lorrimies, on a creek of the same name, a navigable branch of the Miami of the Ohio.

The fishery at the foot of the rapids of the Maumee is, in every respect, equal to that at the rapids of Sandusky, with this advantage, that the quantity of fish is, perhaps, as much greater at the former, as that river is larger than the Sandusky.

The sections adjacent to the river are to be subdivided as those at the rapids of Sandusky, but into tracts of 160 acres instead of 80; having a small front on the river and running back to a length twice or thrice their breadth.

Fort Meigs, which is rendered memorable by having successfully withstood two vigorous sieges in the late war, is situated about three fourths of a mile above the town, and near the foot of the rapids. The old British fort, Miami, memorable in Wayne's campaign against the Indians in 1794, stands on the west side of the river, on a commanding eminence, opposite the lower end of the large island before described, and perhaps about threefourths of a mile below the town. It was here that Wayne so signally defeated the Indians in August, 1794.

(To be continued)

Marine Intelligence of Other Days

THE PRIDE OF SANDUSKY *Eva* WINS IN HER CLASS AT
NIAGARA INTERNATIONAL RACES

*Boys of the Yachts Royally Entertained by the Niagara
Yachtsmen — Eva Starts for Home Today*

Eva, pride of Sandusky, has won another yacht race. She has firmly established her reputation as a sailor and cannot be beaten in a race by any other boat in her class on the Great Lakes. She has in every race this year demonstrated her wonderful sailing qualities and not only has she pleased her owners but gratified every lover of the sport in Sandusky who delights to see the home boat win.

Yesterday *Eva* started in the international yacht races at Niagara on Lake Ontario and left the other yachts with but one exception out of sight, in fact there was no third to the race, the three other boats were left so far in the rear that the judges didn't wait for them to finish.

The following dispatch from Frank B. Rawson, a member of *Eva's* crew, details more closely yesterday's race:

QUEEN'S ROYAL HOTEL, Niagara, Ont., July 31. — The race at Niagara on Lake Ontario was sailed today under a clear sky and with a good wind. The boats all started on time with the classes and before a large crowd of spectators. The course was five miles to the leg and triangular. In *Eva's* class there were the *Dorothy* of Buffalo, *Nadia*, *Nancy* and *Alert* of Hamilton.

Eva won easily, her corrected time being two hours and ten minutes, while *Dorothy*, the only boat to finish after *Eva*, was six minutes later. All others in the class were distanced.

Eva's reputation on Lake Ontario is now thoroughly established. Her weatherly qualities and speed are recognized by all yachtsmen on the lake.

Tonight a ball and banquet was given in honor of visiting yachtsmen at the Queen's Royal hotel. The attendance was large and the costumes

of the ladies and gentlemen were very fine. All of *Eva's* boys enjoyed themselves very much.

Despite the inclement weather this week the Lake Ontario international circuit yacht races have been a big success. *Eva* with the *Scorpion* and *Iris* of Erie, *Dorothy* of Buffalo and *Priscilla* of Cleveland will lock through the canal on Monday. John R. says *Eva* must now have an additional spar to carry her prize flags.

—"Frank B. Rawson"

The crew of *Eva*, who sailed her to victory in her old sailing waters last week is composed as follows: Capt. Geo. F. Anderson, Frank B. Lawson, William F. Seitz, Jr., John Savanack, William Voight and George Webster, her former owner, from Hamilton, Ont.

The official time of the race at Hamilton in which *Eva* also won is as follows:

32-FOOT CLASS

<i>Start, 11:00</i>	<i>Finish</i>	<i>Elap.</i>	<i>Cor.</i>
<i>Eva</i>	1:22:40	2:22:40	2:22:40
<i>Dorothy</i>	1:33:08	2:33:08	2:27:05
<i>Nadia</i>	1:28:30	2:38:30	2:27:46
<i>Nancy</i>	1:58:15	2:58:15	2:55:22
<i>Alert</i>	2:04:00	3:04:00	3:04:00

—*Sandusky Register*, August 1, 1897.

Contributed by Charles E. Frohman.

NEW FERRY

The Milwaukie Wisconsin says that Capt. Cotton and Capt. Jones have finished the model of a steamer to be built for the ferry across Lake Michigan, to connect the Oakland and Ottawa and the Milwaukee and Mississippi railroad, or Grand Haven and Milwaukee. It is to be 325 foot keel, 40 foot beam, 14 foot hold, without guards and without paddle boxes. It is designed to cross without discomfort in the heaviest weather, in four hours. It is to be like the ocean steamers, strong in the hull, with three masts. She will draw nine feet of water. She is to have two saloons on the main deck, and two cabins below. Her estimate cost, including the engine, is \$165,000; everything is to be built there except the engine, and the vessel to be ready for sea in the autumn of 1854.

—*The Liberator* (Boston), December 23, 1853.

FUGITIVE SLAVES

The ferrymen at Detroit say that 900 fugitive slaves have crossed into Canada the past year. It is also reported that 250 have crossed at Cleveland. Their market value must have been full one million of dollars.

—The *Liberator* (Boston), December 30, 1853.

STEAMBOAT EXPLOSION

On the morning of the 22nd ult. the steam propeller *Challenge* bound down from Chicago, exploded her boiler when 20 miles below Machinac, killing five of the crew and severely wounding three others. The stern of the boat was entirely destroyed and she sunk in five minutes. There were some 15 passengers on board who were picked up by the schooner, *North Star*, and transferred to the propeller *Bucephalus*, and carried to Detroit.

—The *Liberator* (Boston), July 1, 1853.

THE *Washington* BURNS

The steamboat *Washington*, from Detroit, left Cleveland on the 14th June and about two o'clock in the night was discovered to be on fire, when about 33 miles from Buffalo. When it became evident that the flames could not be stayed many of the passengers threw themselves overboard, and some made their way to the beaches in safety. The small boat took 25 to the shore. Other small boats succeeded in saving a number but notwithstanding, 40 perished. The boat was totally destroyed.

—*Christian Guardian* (Toronto), June 27, 1838.

The propeller *Ohio*, bound to Buffalo from Cleveland with a cargo of 350 tons of merchandise, when ten miles off Long Point on Sunday morning at 2 o'clock, blew up and sank in ten minutes. There were 17 persons aboard, of whom Thomas Corbett, second mate, and Daniel Dannegan, wheelsman, were lost. The remaining men drifted in a yawl boat without oars in a high sea and with little clothing for fifteen hours, when the propeller *Equator* picked them up. The *Ohio* was owned by the American Transportation Company. It is said that there is no insurance.

—*Evening Colonist and Atlas* (Toronto), November 8, 1859.



GREAT LAKES CALENDAR

Compiled from the Marine Columns of Cleveland Newspapers
By JANET COE SANBORN



FEBRUARY, 1952

Two ships were launched the last day of January by the Manchester Liners Company, for direct service between Manchester and Great Lakes ports. The 2850-ton *Manchester Pioneer*, which is driven by two steam turbines, will be the first British ship to carry passengers and cargo on a regular schedule between Great Britain and our inland ports. The *Manchester Spinner*, 2900 tons, will carry cargo to Montreal in summer and to Halifax in winter.

FEBRUARY, 1952

Michigan Congressman Charles E. Potter announced that Congress would be asked to vote \$446,000 to complete the research begun on the control of the lamprey eel in the Great Lakes. This amount would be in addition to over \$700,000 appropriated since 1947 to study ways of eliminating this menace to trout and other fish.

FEBRUARY, 1952

Plans are being made to salvage over 300 tons of badly needed copper ingot from the bottom of Lake Huron. Eighty years ago the *Ermo P. Reeves*, sank with her cargo in 20 feet of water off Tawas Point, near Saginaw, Michigan. The exact location of the ship has been determined by University of Michigan scientists who estimate that she now lies buried under 25 feet of sand, which must be dredged away before clam hoists can haul the ingots to the surface.

FEBRUARY, 1952

The Friday launching of the \$5,000,000 Chesapeake and Ohio carferry, *Spartan*, came off well, nautical superstition to the contrary! The railroad did not know that oldtime sailors do not hold with the "foolish toying with fate." The Friday superstition goes back to the notion that witches reign on this day and have special power over waters. In addition to Friday, there are 54 other days of the year on which no voyage should begin. The first Monday in April is taboo as it is supposed to be the birthday of Cain and also the day he slew his brother, Abel. Other fateful days are the second Monday in August, which is the anniversary of the destruction of Sodom and Gomorrah, and the 31st of December, when Judas Iscariot hanged himself.

FEBRUARY, 1952

The first skipper to arrive in Toronto Harbor this year was Captain Wallace A. McMillan, with the oil tanker, *Britamette*, from Clarkson, Ontario. He was presented the 105-year old top hat by Toronto Harbor officials and his arrival on February 23rd marked the opening of the navigation season in the Toronto area.

FEBRUARY, 1952

The second of three identical 647-foot vessels being built for the Pittsburgh Steamship Division of United States Steel Company was launched at the Lorain yards of American Ship Building Company before a crowd of 1500 persons, among whom were 175 professors, students, and school and college officials from Greater Cleveland, Elyria and Lorain, guests of the steamship company. In a graceful side launching, Mrs. Anderson christened the vessel, which was *Hull 868*, naming it for her husband, Arthur M. Anderson, who is a director and member of the finance committee of the United States Steel Corporation and chairman of the executive committee of J. P. Morgan and Company, Inc. The Pittsburgh Steamship fleet of 61 ore boats is already the largest fleet on the lakes.

FEBRUARY, 1952

Under the terms of a treaty between the United States and Canada, Great Lakes and St. Lawrence River vessels must now carry radio telephone equipment, which will be an authorized means of communicating distress signals and working calls. All vessels and shore stations will be required to maintain a constant listening watch on the distress frequency.

MARCH, 1952

Delegates and members of the 59 Great Lakes' clubs which make up the membership of the Inter-Lake Yachting Association met in Sandusky to complete plans for their 59th annual regatta to be held at Put-in-Bay, August 9-14. The Sandusky Yacht Club is host this year to the Inter-Lake Yachting Association, the world's largest yachting organization, with member clubs representing 16,000 names on their rosters and owners of around 6000 pleasure boats.

MARCH, 1952

A second skeleton ship, which has been floating around in Lake Michigan for several years, has finally come to rest at the foot of the bluff near Ludington State Park, about half a block north of a hull which was washed ashore in December, 1951. David Sauers, lighthouse keeper at Big Point Sable, believes the first one is the tug *Frank Canfield* which went aground off the Point, April 11, 1904. He has located three other hulls buried in the sand north of the lighthouse and another south of it, but none have been identified.

MARCH, 1952

An unusual event, the launching of a Great Lakes ore carrier in the salt water of the Atlantic ocean, took place at the Bethlehem-Sparrows Point Shipyard, Inc. when the *Elton Hoyt II*, christened by Mr. Hoyt's sister, Mrs. John W. Cross of New York City, slipped stern first into the Chesapeake Bay, with much less speed and splash than that to which guests from the Great Lakes region are accustomed. The 626-foot vessel, owned by the Interlake Steamship Company will be operated by Pickands, Mather and Company. Mr. Elton Hoyt II, for whom this newest vessel is named, is the President of Interlake Steamship Company and senior partner of Pickands, Mather. The *Elton Hoyt II* has been designated the flagship of the 37-ship Interlake fleet. Scheduled to be completed in May, the freighter will be delivered to the lakes by way of the Mississippi River.

MARCH, 1952

The third of the 647-foot iron ore carriers to be launched for the Pittsburgh Division of the United States Steel Corporation was christened the *Cason J. Callaway*, at the Great Lakes Engineering Works yards, Detroit, Michigan. Naming the ship for her husband, a director of the United States Steel Corporation, Mrs. Callaway swung the traditional bottle of champagne against the bow of the giant vessel just before the side-launching into a 150-foot wide slip from which the displaced water cascaded into the Detroit River. The *Callaway* will be the first ship of the fleet with alternating current. She has three anchors, two forward and one aft, weighing 10,000 pounds each.

MARCH, 1952

The westbound steamer, the *Carl D. Bradley*, escorted by the cutter *Mackinaw*, opened the 1952 navigation season through the Straits of Mackinac on the 26th, closely followed by the *T. W. Robinson*. These self-unloaders left Calcite, Michigan, with limestone destined for Gary and Buffington, Indiana.

APRIL, 1952

Navigation through the Soo locks into Lake Superior opened at 1:30, on the 3rd. The first ship through was the Canadian Steamer *Scott Misener*. Close behind were three other Canadian ships, the *Ashcroft*, *Goderich* and *Algocen*. The first American vessel through the locks was the *D. G. Kerr* of the Pittsburgh fleet, entering the Sabin Lock at Sault Ste. Marie, Michigan. The Columbia freighter *Ewig* was first to lock down through the Soo, the returning *Algocen* locking through an hour later.

APRIL, 1952

One of the worst ice jams in the history of lake navigation tied up at least 50 freighters in Whitefish Bay, which were waiting to pass down the Soo locks. The bottleneck was caused by mushy ice piling up in the channel as ships passed through Rock Cut, 18 miles down the St. Mary's River. As more ice moved in, it dropped to the bottom, gradually filling up the center of the passage. The big Coast Guard cutter *Mackinaw* finally "pulled the plug" and warmer weather and a favorable wind did the rest.

APRIL, 1952

The Coast Guard Cutter *Taboma*, which did convoy duty between east coast ports and Greenland during World War II, has been called into service again, but Coast Guard officials would not state what her assignment is to be. She was built in Bay City, Michigan in 1934 for service in the Cleveland district. Ordered to report at Rockland, Maine, she left her pier at the foot of East 9th Street, Cleveland, in tow of the Cutter *Kaw*.

APRIL, 1952

Imperial Woodbend, one of the world's largest lake tankers, was recently accepted by Imperial Oil Company from her builders, the Collingwood Shipyards, Ltd., after successfully passing her running trials in Georgian Bay. She will deliver Alberta oil from the terminus of the Interprovincial pipe line on Lake Superior to refineries in Ontario, joining the service begun last year by her sister ships, *Imperial Leduc* and *Imperial Redwater*. She is 620 feet long and can carry 125,000 barrels of crude oil on a draft of 25 feet.

The Great Lakes in Print

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NOTES

*The Portage Lake Ferry**

BEFORE THE PORTAGE LAKE district had a bridge there was a ferry. It was run by Sam Eales who had a mind of his own and publically admitted same. Sam came to the Portage Lake district in 1853 bringing with him a small yawl boat from a ship. When the weather was appropriate he would scull the little craft across the lake to the small dock at the Hodge Iron Co., near the present Quincy Smelter. If there was wind he would use his "cat" and do a little sailing over. His charges were two shillings per individual. If a lone person wanted to go across the lake he would charge four shillings as Sam was never known to cross for less than four shillings. According to accounts, waiting for a boat was not too difficult a job. Sam's waiting room was a comfy cabin, and he had a helper by the name of John Martin who, with his Dutch wife, could really make a visitor at home. "Half and Half" was always available and so was "Triple X Pike."

When business increased John found it necessary to go "below" and get a bigger and better boat for his ferrying activities. After one such trip he came back with the palatial propeller *Northern Light*, 40 footer with cockpit extending the entire length of the boat and having also a canvas canopy. By 1858, Hancock had so grown that the *Northern Light* had to extend its business from the Pewabic dock in Ripley to Hancock. It took a half hour to do the distance, and before long Sam had to add a small scow to take care of transferring teams across the lake.

By 1863 the traffic had grown so great that Sam let his helper take over the business and took another trip "down below" to bring up a bigger and better ship. When he got back home it was aboard the *Niagara*, a truly magnificent sidewheeler. The boat was so large that it could carry three double teams or four singles. But still the boat could not keep up with the constantly increasing number of teams, single horses, sheep, cattle and what not. So again there was clamor for better facilities, even for a bridge.

In 1867 John Martin bought out the interest of Eales. In 1873 therefore, Martin constructed a "floating bridge" called the *Leviathan*. It was a double ended scow working on a cable with steam for power, had a driveway through the center of its 100-foot length and could easily accommodate eight teams each trip.

The Eales-Martin contract stipulated that the latter was to furnish the former with food, lodging and attire as long as Eales lived. Martin got the worst of the bargain as Eales persisted in being around for some 20 years after the signing of the agreement. Some accounts hint that before Eales died Martin was close to the alms house himself.

Although Martin gave the district the finest transit available, still the clamor was heard for a bridge. So in 1871 the first charter for a bridge was granted. It was to be 14 feet in height and 24 feet wide with a turntable near the center of the lake, which was to have passages of 60 feet for vessels. In December the new

* From an old newspaper clipping.

bridge was accepted from the contractors, Fox and Howard of Chicago, that firm having taken the contract for \$47,000. Most of the piling for the structure was brought by the tug *Maythen* from Ashland, Wisconsin assisted by the tug *Cora A. Sheldon*. The first two years the bridge was unable to pay expenses because of the rival Martin ferry but when the ferry

interests were bought out the bridge finally earned its keep. It was a toll bridge, privately owned by a local man named George Sheldon.

In 1895 the present steel structure was built as it now exists, except for the draw which was pushed over in 1905 by the Str. *Northern Wave*.

CAPTAIN FRANK HAMILTON

Hulls and Engines

RECENTLY THE *J. S. Ashley* sailed from Cleveland after some final finishing touches at the Rud Machine Company dock on the Cuyahoga River. The *Ashley*, a self-unloader employed for the most part in the stone trade on Lake Michigan between Port Inland and Indiana Harbor, has been undergoing extensive changes and improvements this past winter. She is an example of the reversal of the old custom of removing the engines from a worn-out or wrecked hull and putting them into a new vessel. Her engines have finally worn out, and she now has a new Skinner Unaflo engine, together with new B. & W. oil-fired boilers. As a matter of interest, the *Ashley* represents two metamorphoses, for she was, in 1909, the new hull into which were placed the engines from another lake freighter. The hull has now outlasted the engine.

The former engine, an 1800-horsepower quadruple-expansion reciprocating type, which was removed from the ship last winter and scrapped, was originally built in 1899 and installed in the *Lafayette* at The American Ship Building Company's yard in Lorain. The *Lafayette* went ashore

on the north shore of Lake Superior a few miles east of Two Harbors in the big blow of November 27-28, 1905. At the time she was towing the barge *Manila*, which likewise went ashore. The *Manila* was badly damaged, but was salvaged and placed back in service. The *Lafayette* was less fortunate, her steel hull breaking into three pieces from the battering she took on the rocks there. The wreckers saved only her after end, and towed it to Superior. The engine was removed for installation in the *J. S. Ashley*, to give faithful service for another 41 years. In that time the old "quad" has driven the *Ashley* some 2,000,000 miles, originally under the Kinney flag, and later as one of the Hutchinson Fleet. As guests of Captain Murphy on a cold evening last November, Charlie Lindsley and I had the nostalgic experience of riding the *Ashley* from the Cleveland Stevedore dock on Cleveland's lake front to the Rud Machine dock, and it was on that brief excursion that we watched the pretty little "quad" turn its last dying revolutions.

—FRED W. DUTTON

The Fresh-Water Garfish

ONE OF MY RECOLLECTIONS regarding the earliest of those biological pursuits which somehow directed me to my present profession is that of catching and keeping in aquaria, small aquatic creatures. During late grade school and junior high school years, many happy summer hours were spent with a kitchen strainer and a jar, poking about in the slips of the Clifton Park Lagoon, or in the weedy little channel which passes west of the island occupied by The Cleveland Yacht Club. Living treasures abound in those waters, seldom clear because of silt contributed by the valley soil of Rocky River, and because of the constant churning of power boat propellers.

One of the most interesting specimens with which I made an acquaintance at that time is the fresh-water garfish, or "garpike." Since the collecting fever usually overtook me in the first warm days of May, and lasted well into the heat of August, baby gars, sometimes less than an inch long were often among the creatures caught by the frantic scoops of my strainer. These tiny babies look for all the world like short fragments of brown broomstraw floating placidly just under the surface film. In an aquarium and viewed from the side, their fishy nature is more apparent, but their swimming habits and table manners are well worth a moment's consideration.

The adult garfish, which many readers have seen, are slender fishes, *café-au-lait* above, whitish below, with the shades merging at the lateral line. The adult possesses pectoral and pelvic fins which resemble those of ordinary fishes, and even the tail fin might be compared in shape with that of the average bullhead. The head shape gives the creature its popular name of "alligator gar," since the jaws are extremely long and narrow, and are equipped, upper and lower, with an abundance of needle-like teeth.

Just as kittens and puppies tend to be much foreshortened versions of their parents as regards physiognomy, so the baby gars have shortened snouts. Their coloring, a soft brown above and white below is modified from that of the parent by the presence of a black streak, like a water line, if you please, just about midway between the dorsal and ventral midlines. This line adds to the stick-like appearance when seen from the side by other water animals.

Although the pelvic fins (those corresponding to the hind legs of land animals) are quite like the usual fishy equipment, the pectoral are circular paddles; stubby appendages surrounded by a delicate frilled and transparent membrane. In use these finlets are vibrated with such rapidity that they remind one of the paired propellers of a rigid airship. They apparently serve, not only to drive the little creature forward, but to propel him upward, downward, or even sideways as fishy will dictates.

The tail is more interesting. In profile it resembles a child's mitten in shape, thumb sharpened and uppermost. This organ is a combination propeller and rudder. The "finger" of the "mitten" is vibrated from side to side with incredible speed; the large lower blade or "hand" simply steers, and one can see it twisted slowly from side to side as the gar cruises the waters like a miniature submarine, trunk straight and unbending.

The comparison with a submarine is quite suitable with regard to the other features of the gar's habits, since he attacks his finny prey by stealth rather than by speed. Anything as lifeless looking as a young garfish drifting along with no visible effort save for the blurred tail-tip and the tiny pectorals is completely above suspicion by the small minnows upon which he feeds. He cruises quietly among the minnows in a small school, like a raider

in the midst of a convoy. Drifting close to an intended victim, he snaps his head sideways very suddenly and in a trice a struggling minnow is caught crosswise between the needled jaws. Struggle is of no avail, although it may turn both the victim and the attacker over and over in a shower of microscopic minnow scales. When the prey is quiet, the gar, by imperceptible quick sidewise movements of head and relaxation of jaw muscles, manages to turn the victim around into position for swallowing. Several gulps then occur, and the dinner is swallowed unceremoniously, either head or tail first. In an aquarium I have seen an adolescent gar three inches long take in as many as seven fat one inch minnows without hesitation. Since the gar is a slim fish, the presence, abundance, and position of the meal is quite evident.

Sometime during his second year, the gar, having reached a length of a foot or more, exchanges his baby tail for a grown-

up one, and his baby pectoral fins slowly metamorphose into something more orthodox. His snout is long by now, and his black "waterline" fades to a series of blotches. Now he cruises the open water in undulating, serpentine fashion in search of larger victims.

The name "Lepidosteus" indicates that this garfish has scales in the nature of bony plates. The scales are diamond-shaped and placed in diagonal rows with little overlapping. Their coating of ganoin, a hard, enamel-like substance, indicates the gar's probable relation to a group of ancient fishes which were abundant long ago, and probably occupied a position intermediate between the ancestors of land animals and the forms which have given rise to the game fishes of today.

The presence of the "mitten" shaped tail, peculiar pectorals, and the short baby snout invites speculation as to what these ancient fishes themselves were like.

—ISAAC S. H. METCALF

The Hunter Savidge

THE FOLLOWING DATA on the *Hunter Savidge*, a schooner which transported lumber from Alpena to Buffalo, was supplied by Wade C. Browne, a pioneer member of G. L. H. S., in response to a request from another member, George N. Comfort. As it may be of interest to other members we reprint it here:

The *Hunter Savidge* is listed in Beeson's for 1893 as a schooner, 152 gross tons, built 1879 at Grand Haven, Michigan, with J. Mullerweiss as owner or manager and Alpena, Michigan as residence of owner or manager. The *Blue Book of American Shipping* for 1898 gives the same information, plus 144 net tonnage

and the keel length of 117 and beam of 26 feet. *Shipmasters' Directory* for 1899 repeats this same information. (There was also a tug with the same name.)

Merchant Vessels of the United States, 1899, adds the Official Number: 95569; and also gives her dimensions in more detail, as follows:

Length — 117.0 feet
Breadth — 26.6 "
Depth — 8.2 "

The 1900 *Blue Book of American Shipping* again gives the same information, but adds the important word, "Lost." This would no doubt mean she was lost during the 1899 sailing season.

G. L. H. S. Annual Meeting

ON MAY 22, 1952 the annual meeting of the Great Lakes Historical Society was held at the Cleveland Public Library. Dinner was served in the Library dining room to 75 guests. A short business meeting followed, Mr. Alva Bradley, President, presiding. Nomination of officers from the floor was requested; the members voted to continue the present officers in office for 1952-3. They are Alva Bradley, President; Clarence S. Metcalf, Executive Vice-President; Lawrence A. Pomeroy, Jr., Secretary; Fred W. Dutton, Treasurer; Janet Coe Sanborn, Assistant Treasurer.

It was voted to appoint a committee to draw up a resolution on the death of Mr. E. J. Kulas, a donor member and trustee of G. L. H. S. whose passing we regret.

The secretary reported on the Society's expanding activities, particularly in supplying data on Great Lakes history and ships to individuals and organizations and commented on the appropriateness of holding our meeting on National Maritime Day. He also expressed the Society's gratitude to Mr. Gerald S. Wellman, Vice-President of the Lake Carriers' Association, for arranging to insert a descriptive leaflet about INLAND SEAS in all copies (4000) of the May 15th issue of the *Lake Carriers' Bulletin*. The treasurer reported that the \$300 deficit of 1950-1 was reduced to \$4.50 in 1951-2. The chairman of the membership committee, Herbert W. Dosey, reported an increase of about 60 members since the last annual meeting but said his committee had set a goal of 1000 members.

After the business meeting Mr. Bradley introduced the out-of-town guests and then asked Miss Donna L. Root, Editor of INLAND SEAS, to present Lt. Rowley Murphy of Toronto. Miss Root commented briefly on the basic objectives of the G. L. H. S., namely, to preserve Great Lakes history by working with any other groups to promote interest and by publishing INLAND SEAS. She then thanked the members for their contributions to the

pages of INLAND SEAS, saying that many present had given generously of their efforts. She reminded those present of our many Canadian members and their loyal support, particularly Mr. Fred Landon, Associate Editor. She mentioned that Lt. Murphy had written frequently for INLAND SEAS and asked him to announce a new project which he had proposed to the Society.

Lt. Murphy, a distinguished Canadian artist and yachtsman, told that he has been commissioned by Josiah Wedgwood & Sons, famous makers of china of Stoke-on-Trent, England, to make drawings of historic Great Lakes ships for a series of commemorative plates. As it is customary for this firm to have a sponsor for such plates, Lt. Murphy had suggested that the Great Lakes Historical Society act in that capacity. Permission was given by the Executive Committee. The name of the Society will appear on the back of the plates as sponsor. No obligations are involved. It is hoped the first four of a series of 12 will appear within a year. Members of the Society later expressed great interest and approval of this important event. Lt. Cdr. J. W. Braidwood, Secretary-Treasurer of Wedgwood, Toronto, accompanied Lt. Murphy to Cleveland for the meeting.

Among other out-of-town guests were: Mrs. Elleine Stones and Miss Helen Ellis of the Burton Historical Collection, Detroit Public Library and Captain and Mrs. Joseph E. Johnston, Curator of Maritime History, Detroit Historical Museum.

For the evening's program, a recording of a dramatization of the Battle of Lake Erie, a radio script, was heard. It is one of a series written by Ralph E. Prouty of Cleveland. A showing of the "A Victory for Cliffs," the beautiful color film of the *Cliffs Victory* was shown through the courtesy of the Cleveland Cliffs Company and Bethlehem Steel Corporation.

As is usual at G. L. H. S. meetings,

great informality prevailed. As one of our out-of-town guests wrote after returning home, "we were appreciative of the informal friendliness of your officers

and members, who made us feel really at home - - - but then, all the best people are met through sea-going or yachting."

—D. L. R.

Rare Book on Ships

A RARE BOOK ON SHIPBUILDING, seen by few, has been acquired by the Cleveland Public Library's Technology Division. This is *The Practical Ship-BUILDER*, by Laughlan McKay (New York, Collins, Keese and Co., 1839), described on the title page as "practical ship-builder and carpenter, of the United States Navy." McKay was a brother of Donald McKay, the greatest masterbuilder of wooden ships, who built the *Flying Cloud*, *Great Republic* and other famous vessels. All told, there were 16 brothers and sisters in the family, some of the other brothers also being active in shipbuilding.

A book of this date would naturally deal with wooden vessels. There are comprehensive instructions, from the making of the model to the completed task, with a dictionary of terms, and seven folding plates which are drafts for a ship, pilot boat, schooner, brig, sloop and steamboat. Construction of steamboats receives but brief attention however, McKay saying frankly that it is out of his province. We learn that the steamer *Ruby*, plying between London and Gravesend, is said to be the fastest boat in Europe, "as she has frequently attained the speed of 14 miles per hour, which is within one mile per hour of our fastest boats."

Marine Photography

THE FIFTH ANNUAL EXHIBITION of Marine Photography was held at the Mariners' Museum, Newport News, Virginia, under the joint sponsorship of the Museum and the James River Camera Club. The attractive illustrated catalog of entries and awards, illustrated with prize winning prints, lists a number of Great Lakes entries. Mr. E. M. Prentke, a member of the Great Lakes Historical Society, had two entries in the color transparency class. The winner of First Award

Class A (monochromes) was Mr. J. Elwood Armstrong of Detroit, Michigan, for *Beat to Windward*, a dramatic picture of the schooner yacht *Malibar VI* on Lake St. Clair.

Members of G. L. H. S. may wish to note this exhibit in order to enter prints or transparencies next year. The Great Lakes should be more widely represented in this successful marine salon.

—D. L. R.

John Island's Stolen Sawmill

WITH EAST-WEST LENGTH of four and two-thirds miles, by almost a mile and one half greatest breadth, uninhabited John Island rises to 250 feet in Georgian Bay's North Channel, twenty miles east of Blind River, and the same distance west of Little Current. It appears to have remained unnamed and unnoticed until a stolen sawmill was unloaded at the harbour near the eastern end. Mile-long Aikens Island stretches east and west across its entrance and makes it a perfectly sheltered basin. A four-fathom channel enters it from the north, and a fourteen foot channel leads in from the east. This suited the needs of a lumberman named John Moyles, who conspired with his three brothers, George, Bart and Jim to steal a sawmill from Detour, Michigan, then towed it across the international boundary and reerected it at what is now called Moiles Harbour. It remained in operation for over twenty years.

In 1890, or thereabouts, the four Moyles brothers, whose home was in Saginaw, Michigan, built a large well-equipped sawmill at Detour, but when it came to securing their raw material, the logging and other operating expenses were so high that they were soon in financial difficulties. The owners of the timber limit advanced them more capital so that they might increase the capacity of their mill, and they bought new machinery, but still operated at a loss.

Bart Moyles was a clever and none too scrupulous lawyer, and devised a plan whereby he and his brothers could save their mill from being taken over by the creditors. They planned to steal their own mill, and transport it by water to Canada.

Elaborate preparations were made to carry off the sawmill at the time of the spring break-up. Tugboats and lighters were brought up Lake Huron from Saginaw to Detour, under pretence of taking back lumber cargoes, but, to the surprise of their crews, were tied up at the sawmill

instead of the lumber wharf. Meantime, every bit of the mill machinery was being dismantled behind closed doors within the mill walls, although two watchmen had been deputed to protect the interests of the Alpena firm which had financed the improvements. Artifice was used to circumvent them.

Putting a bottle of liquor where one of them could find it was all that was necessary to render him hors de combat. The other watchman was more difficult to handle, but the conspirators got him out of the way by having a man rush in about 6:30 P. M. and tell him that his wife was about to give birth to a baby, and that he was wanted at home forthwith. He left on horseback but the horse had been doctored so that it would become ill on the road. As a result the watchman was forced to walk the final seven miles. He arrived exhausted to find his wife in good health. Suspecting nothing, he waited until morning before beginning his return to Detour.

Meanwhile, after both watchmen had been disposed of, the mill crew and tug crews united their efforts and lost no time in loading the machinery and mill frame on the two large lighters. Everything was loaded, including engines, boilers, tramways, jack-ladder, lumber, trucks and all equipment. Even the nails that held the siding were taken, and the total value of the property, outside of real estate, left at Detour did not exceed five dollars. By 1:30 A. M. everything was on board the two lighters, the tugs had steam up, every person was at his post, and the convoy got under way. When morning dawned, the convoy was about seven miles from Detour, fiercely battling the drift ice. About 4:30 P. M. it crossed the international boundary, somewhere in the vicinity of Whiskey Point, St. Joseph's Island, and was safely in Canadian waters.

When the watchman returned to Detour, he quickly found that the large saw-

mill and all its trimmings had disappeared, although the tugs and their lighters were still in sight. He rushed to the telegraph office to wire his chiefs at Alpena, and the sheriff at Sault Ste. Marie, Michigan, but discovered the wires had been cut. Next day the sheriff caught up with the runaway sawmill. John Moyles was captain of one of the tugs. He feared the sheriff might try to get a line aboard the lighter he was towing, and attempt to pull it back across the international boundary. Seizing a rifle, he strode to the stern of his tug, and in a loud voice warned the pursuing sheriff that if he attempted to board any part of his fleet he would drill such a hole through his body that his friends would be able to see next Christmas through him, and that his heart might fall overboard, and be separated from his body for a considerable period. The result of this hostile demonstration was that the frustrated sheriff returned to Sault Ste. Marie without accomplishing his purpose.

The little pirate fleet remained imprisoned in the ice by an onshore wind for three days. The wind then changed, and the ice moved so that the two tugs and their lighters were able to proceed north through Worsley Bay, and then through the western part of the North Channel, calling, but not tying up at Thessalon and Blind River.

No trouble was experienced with the Canadian customs officials, and the stolen sawmill, after a few days was re-erected by willing hands at Moiles Harbour, on John Island.

Two and one-half to three fathoms was ample depth for schooners and steam barges to tie up at the lumber wharf that was constructed. Two parallel lines of cribwork, with room for schooners to proceed between them were next built a short distance eastward, in Moiles Harbour, to provide additional piling space.

One of the two tugs was used to tow lumber-laden lighters from the mill wharf

to the cribwork, besides assisting schooners during their arrival and departure. Schooners chose either the northern or eastern entrance to make best use of the breeze that was blowing. The remaining tug was employed to bring log-rafts to the mill through the north channel. The cribwork, as well as the wharf, remains to be seen by visitors, and both appear in the accompanying air view of Moiles Harbour.

The daring and successful exploit of stealing an entire sawmill intrigued the hundreds of bush workers along the North Channel, and they found delight in recounting the story of the stolen sawmill to the crews of tugs whenever they arrived to tow log-rafts to the sawmills on the southern shore of Georgian Bay.

It would form an agreeable close to this story to state that John Moyles and his three brothers finally achieved financial success with their sawmill in Canada, after being dogged by failure in the United States, but the facts are otherwise. After operating their mill on John Island for a number of years, they sold it to Guy Multhroe of Bay City, who had been operating along the Onaping River, west of Sudbury. Multhroe then remained in possession of the sawmill until he retired from lumbering, due to depletion of the timber limits.

On Sunday, April 17, 1918, this historic sawmill was totally destroyed by fire along with the other buildings in its vicinity. Since then, John Island has remained uninhabited, except for a few Indians who camp on it during the summer in order to fish.

In one thing John Moyles was successful beyond contradiction, and that was in giving his name to an island over four miles long in Georgian Bay. A number of islands commemorate Royal Navy officers, but in the whole world there is only one island that honors a man who stole a sawmill. His name was John.

—W. R. WILLIAMS

Elroy John Kulas

ELROY JOHN KULAS, a trustee of the Great Lakes Historical Society, a benefactor of Baldwin-Wallace College and the Musical Arts Association of Cleveland, and a leading figure in the steel industry, died at his home in Gates Mills, a Cleveland suburb, on May 14.

His business career included a reorganization of the National Electric Lamp Co. of Cleveland, the formation of the Midland Steel Products Co., and the presidency of the Otis Steel Co. from 1925 until its

merger into the Jones & Laughlin Steel Corporation in 1942. From 1942 to 1946 he was a director and vice-chairman of the Jones & Laughlin executive committee.

Always interested in the Great Lakes, Mr. Kulas' service on the board of trustees of G. L. H. S. lent prestige to this organization. He early became a life member.

At the annual meeting of the Society on May 22 a committee was appointed to draft resolutions on his death and transmit them to his family.

This Month's Contributors

ALBERT G. BALLERT is Senior Research Planner for the Chicago Plan Commission, and is a lecturer in geography at the University of Chicago. He has written a number of articles on Great Lakes commerce including the booklet *Major Ports of Michigan*, 1951.

The Story of the D. C. by Francis Duncan of Falls Church, Virginia and *The American Grain Trade* by Thomas Odle of Ann Arbor will be continued through future issues of INLAND SEAS. The Winter 1951 issue carried notes on the authors.

FRED W. DUTTON is Chief Clerk in the C. & O. Railroad Law Department and Treasurer of the Great Lakes Historical Society.

C. E. FROHMAN of Sandusky, Ohio is President of the Hinde & Dauch Paper Company and a trustee of the Great Lakes Historical Society.

CAPTAIN FRANK E. HAMILTON, master of the passenger steamer *Put-in-Bay* is one of the comparatively rare lake masters with deep-sea license. He is a Great Lakes col-

lector of data and pictures on ships of the past.

MAJOR I. S. H. METCALF is an instructor at the Citadel, Charleston, South Carolina, but spent his boyhood in Cleveland.

LT. ROWLEY MURPHY is an artist and yachtsman of Toronto, Canada who has written previously for INLAND SEAS. He is instructor in Toronto College of Art and was official artist for the R. C. N. in World War II.

MIRIAM MANSFIELD STIMSON is a writer and world traveller whose home is Sandusky. Her book, *Detroit Doorway of Desire* won an Avery Hopwood award at the University of Michigan in 1944.

W. R. WILLIAMS of Penetanguishene, Ontario, is a frequent contributor to INLAND SEAS.

EDITH WIRT is Head of the Foreign Literature Division of the Cleveland Public Library. The lines of poetry in her article are her own translation, the first time they have been in English.



Book Reviews



OARS, SAILS AND STEAM, A PICTURE BOOK OF SHIPS, by Edwin Tunis. Cleveland and New York, World Publishing Co., 1952. \$3.50.

These are pictures in black and white, incorporated in the text, with a few explanatory remarks. They begin with the log, the dugout and the canoe, then show Egyptian, Phoenician and Greek vessels, and so on down through the ages, including the special types seen in the recent war. The only specifically lake boat shown is the whaleback. There is a good glossary of nautical terms. This, with the convenience of having at hand readily found pictures of the various vessel types, makes this a good book for any ship lover.

—G. W. T.

THE SMALL-BOAT SKIPPER AND HIS PROBLEMS, by Eugene V. Connett, 3rd. New York, W. W. Norton & Co., Inc., 1952. \$3.50.

Enough books to fill a modest library have been written about how to handle a sailboat — cruising books, sailing books, books of advice and instructions, telling what to do and what not to do. Most of them follow a pattern, for after all, a sailboat is a sailboat, and sailing a boat is governed by the same fundamental principles, embracing the use of the wind and a set of sails, which constitute your "engine." The more you know about the things you are working (or playing) with, the more effective will the results be. At the same time, no two writers' experiences are alike, and some are more resourceful than others; and, too, some are more observant and more skilled in telling about it. From each of these authors one is bound to gain some valuable pointers that never occurred to the reader before, no matter how good you are or how wide your experience.

And so it is with Mr. Connett. He gives you the benefit of his experience and ingenuity in an amusing, fo'c's'le style, which cannot fail to make the book interesting reading to anyone having the slightest love for the water. I shouldn't be surprised if it would make a few sailboat men out of some of its readers who may not heretofore have owned or sailed a sailboat. So I warn any prospective reader to lay it firmly aside if he does not want to be exposed to the danger of being bitten by the sailing virus — an insidious disease that once it infects the blood, will never be completely eliminated from the system.

The author's fifty years of small-boat sailing qualify him to speak with authority, and he does so, to a nicety. To illustrate his points he relates a number of fascinating anecdotes about his cruisings around Long Island waters. He deals with the general subject from the point of view of the skipper of a small, shallow-draft boat, wherein the problems differ a great deal from those involved in sailing a large boat with deeper

draft. His specialty is what yachtsmen call "gunkhole" sailing, this type of boat being most fitted for exploring the mysteries of hidden, out-of-the-way, tiny bays and creeks and landlocked hideaways where the depth of the water is measured in inches rather than in feet or fathoms. He claims no love or desire for offshore sailing, and in this he is right, of course, for most small-craft sailors know they have no business very far from shore.

There is a chapter entitled "The Dumb Skipper's Compass," wherein the author lays down three simple rules for use of the compass. Among his comments may be found the following gem:

"Rule No. 2, while not quite as important as Rule No. 1, solves the thing often referred to as Variation. Never mind what variation is; to hell with it."

If you are curious enough to want to know what Rule No. 2 is, you can refer to the book. I like this kind of a fellow.

Another chapter is entitled "On the Gentle Art of Getting Scared." Under "Duffel and other Important Details" he includes some wise observations about medical attention aboard the boat, such as: "Don't get sassy with sunburn. I did once, and ended up in a delirium." Anyone who cares to read the book will be edified and entertained concerning such subjects as: Advice on selecting a small sailboat; hull, rigging, equipment, motor; grub, with recipes; handling a boat in a storm; piloting problems; sailing alone; sailing in shoal water; marlinspike seamanship; and kindred matters.

A sprightly, yet thoughtful book, summed up by the author in the last paragraph: "I . . . realize that a hell of a lot of nice people could have a hell of a lot of fun on a hell of a lot of small boats if we had just a little more common sense." Amen to that!

—F. W. D.

LETTERS OF JAKOB SCHRAMM AND FAMILY FROM INDIANA TO GERMANY IN 1836, translated by Norma M. Stone, with Notes by Emma Schnull Vonnegut and by the Translator. Hanover, New Hampshire, Dartmouth Printing Co., 1951.

Mrs. Stone, a great-granddaughter of the Schramms says that only two copies of the original are known, one in her possession and one in that of the Indiana Historical Society. That organization published a translation by Mrs. Vonnegut in 1935. As it abridged the text, and as the descendants of the Schramms might find it hard to get this translation, Mrs. Stone has tried her hand, adding also a picture of New York Harbor and a map of the United States in 1837.

This is an interesting pioneer narrative, containing most of the features that might seem strange to an immigrant. *INLAND SEAS* is chiefly concerned with the account of the boat trip on Lake Erie from Buffalo to Cleveland. "The steamer was a magnificent vessel, 46 feet wide and 120 feet long, with two decks . . . We had to pay 6 dollars per person, even though the trip lasted only 30 hours. Those of us who slept and ate in the cabin had to pay 6 dollars for one person, while those who stayed on deck and furnished their own food paid only 3 dollars. The fare charged on Lake Erie is said to be so high because of the danger from storms."

The Schramms thought the boat beautiful, and equipped in princely fashion, with comfortable beds, attached to the silk and satin covered walls. Each berth was numbered, and on the table lay a paper listing these numbers. The passenger picked out a berth and wrote his name opposite the number.

A useful addition to our list of sources on pioneer life.

—G. W. T.

THE PORTS OF CONNEAUT, ASHTABULA, AND FAIRPORT, OHIO, PREPARED BY THE BOARD OF ENGINEERS FOR RIVERS AND HARBORS. Washington, Government Printing Office, 1951. \$1.50.

This is one of the Board's series on lake ports, revised from its first publication in 1939. The new edition is mimeographed and in larger type than the former, which was printed. While lake captains are familiar with such publications, not all our readers may be aware of the information they contain.

There are accounts of the harbors, including currents, anchorages, bridges, channel improvements, fire protection and weather conditions. There are also notices about customs regulations, terminal services and charges, dock facilities, distances from other lake ports, railroad freight rates, and products shipped in commerce. Abundant figures are given, and there are folding maps and pictures. Such publications are invaluable for anyone wishing to put in at these ports.

—G. W. T.

FRESHWATER FISH AND FISHING IN NATIVE NORTH AMERICA, by Erhard Rostlund. Berkeley, University of California Press, 1952. (*University of California Publications in Geology*, vol. 9.) \$3.50.

This comprehensive book on fishing tells the reader everything except how to fish. It is divided into two parts: the fish resource, and aboriginal fishing methods. Under the former head are treated such topics as the food value of freshwater fishes, and the principal species, in which not even crappies are disdained. Next is data on the productivity of fresh waters, and figures of catches.

A good third of the book is devoted to Indian fishing methods, discussing nets, weirs and traps, fish poisoning and the preservation of fish. There is a detailed bibliography, with many references to Great Lakes areas. The numerous maps show the geographical distribution of individual species, and there is a good index.

More for the historian than for the practical man, it gives much information which it would be hard to find elsewhere.

—G. W. T.

BOATS AND BOATMEN, by T. C. Lethbridge. London, New York, Thames & Hudson, 1952. \$3.00.

An unusually interesting book on the history of boats and specifically of boat construction, treated both historically and practically. The author starts with the origin of hull forms, of propulsion and the effects of geographical considerations. He finds that skillful boat-building originated not with the Vikings, as is often asserted, but in the Mediterranean, later spreading northward. His first chapter is on fish, boats and fishermen, because these were the first to brave the terrors of the sea.

There is a discussion of the effects of superstition and ritual, which have been allies of conservatism in marine construction. Finally he evaluates the influence of beach and estuary on boat design.

The attractive volume has several plates, 41 illustrative drawings by the author, some plans, and an adequate index. It is well written, informative, and entertaining. Anyone who wants to know how boats came to be as they are, should read this.

—G. W. T.

THE GREAT LAKES HISTORICAL SOCIETY

IS A NONPROFIT ORGANIZATION SPONSORED BY THE CLEVELAND PUBLIC LIBRARY

Its objectives are to:

Promote interest in discovering and preserving material on the Great Lakes and the Great Lakes area of the United States and Canada, such as books, documents, records and objects relating to the history, geography, geology, commerce and folklore of the Great Lakes.

Centralize information regarding such collections through the co-operative efforts of local historical societies and libraries throughout this area.

Sponsor an inclusive bibliography or finding list of materials on Great Lakes history and historical material scattered over the entire area and to be found in public, private and college libraries, in historical societies and religious institutions of the United States and Canada.

Publish INLAND SEAS, a quarterly bulletin containing articles and memoranda pertinent to the interests of The Great Lakes Historical Society and those interested in the history and commerce of the Great Lakes.

The Great Lakes area is the richest in the world, with a fascinating and romantic history. The Society is working for public appreciation of the courage, enterprise and sacrifice of our people who built up this great region and for permanent preservation of its history.

Annual membership fees of the Society are used for the publication of INLAND SEAS, for costs of preparation of the Lakes bibliography, and for any other projects approved by the Board of Trustees.

It offers three types of membership: Life (individual or organization), \$100.00; Sustaining (individual or organization), \$10.00 or more annually; Annual Membership (individual or organization), \$5.00 annually. Please make checks payable to The Great Lakes Historical Society, 325 Superior Avenue, Cleveland 14, Ohio.

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